

4

CUMULATIVE ANALYSIS

4.1 Introduction

This chapter presents the requirements for cumulative impact analysis, as well as the actual analysis of the potential for the proposed Project, together with other past, present, and reasonably foreseeable future projects in each resource area’s cumulative geographic scope, to have significant cumulative effects. Following the presentation of the requirements related to cumulative impact analyses and a description of the related projects (Sections 4.1.1 and 4.1.2, respectively), the analysis in Section 4.2 addresses each of the resource areas for which the proposed Project may make a cumulatively considerable contribution to cumulative impacts, when combined with other reasonable and foreseeable projects in the area. Section 4.3 addresses cumulative impacts associated with the No Federal Action/No Project Alternative and the Reduced Project Alternative.

4.1.1 Requirements for Cumulative Impact Analysis

The National Environmental Policy Act (NEPA) (40 CFR 1508.7 and 40 CFR 1508.25[a][2]) and the California Environmental Quality Act (CEQA) Guidelines (Section 15130) require a reasonable analysis of the significant cumulative impacts of a proposed project.

NEPA (40 CFR 1508.7 and 40 CFR 1508.25[a][2]) and the State CEQA Guidelines (14 CCR 15130) require a reasonable analysis of the significant cumulative impacts of a proposed project. Cumulative impacts are defined by CEQA as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (State CEQA Guidelines, Section 15355).

1 Cumulative impacts are further described as follows:

- 2 a. The individual effects may be changes resulting from a single project or a
3 number of separate projects.
- 4 b. The cumulative impacts from several projects are the change in the
5 environment which results from the incremental impact of the project when
6 added to other closely related past, present, and reasonably foreseeable future
7 projects. Cumulative impacts can result from individually minor but
8 collectively significant projects taking place over a period of time (40 CFR
9 1508.7 and State CEQA Guidelines, Section 15355[b]).

10 Furthermore, according to State CEQA Guidelines Section 15130(a)(1):

11 As defined in Section 15355, a “cumulative impact” consists of an impact that is
12 created as a result of the combination of the project evaluated in the EIR together
13 with other projects causing related impacts. An EIR should not discuss impacts
14 which do not result in part from the project evaluated in the EIR.

15 In addition, as stated in the State CEQA Guidelines, Section 15064(i)(5):

16 The mere existence of significant cumulative impacts caused by other projects
17 alone shall not constitute substantial evidence that the proposed project’s
18 incremental effects are cumulatively considerable.

19 NEPA also requires analysis of cumulative impacts; 40 CFR Section 1508.7 states:

20 Cumulative impact is the impact on the environment which results from the
21 incremental impact of the action when added to other past, present, and
22 reasonably foreseeable future actions regardless of what agency (Federal or non-
23 Federal) or person undertakes such other actions. Cumulative impacts can result
24 from individually minor but collectively significant actions taking place over a
25 period of time.

26 The U.S. Army Corps of Engineers (USACE), as part of its cumulative impacts
27 analysis, is required to identify area(s) in which the effects of the proposed action
28 will be felt; the effects that are expected in those area(s) from the proposed action;
29 past, present, and reasonably foreseeable future actions that have or that are expected
30 to have impacts in the same area; the impacts or expected impacts from these other
31 actions; and the overall impact(s) that can be expected if the individual impacts are
32 allowed to accumulate. *Fritiofson v. Alexander*, 772 F.2d 1225, 1245 (5th Cir. 1985).

33 Therefore, the following cumulative impact analysis focuses on whether the impacts
34 of the proposed Project are cumulatively considerable or cumulatively significant
35 within the context of impacts caused by other past, present, or future projects. The
36 cumulative impact scenario considers other projects proposed within the area defined
37 for each resource, that have the potential to contribute to cumulatively considerable
38 impacts.

39 For this Supplemental Environmental Impact Statement/Subsequent Environmental
40 Impact Report (SEIS/SEIR), related area projects with a potential to contribute to
41 cumulative impacts were identified using one of two approaches: the “list”

1 methodology or the “projection” methodology. Most of the resource areas were
2 analyzed using a list of closely related projects that would be constructed in the
3 cumulative geographic scope (which differs by resource and sometimes for impacts
4 within a resource; cumulative regions of influence are documented in Section 4.2
5 below). The list of related projects is provided in Section 4.1.2 below.

6 Air quality, noise, and ground transportation analyses use a projection or a combined
7 list and projection approach as described below. Cumulative analysis of air quality
8 impacts uses projections from the South Coast Air Basin (SCAB) 2007 Air Quality
9 Management Plan (AQMP) and the Multiple Air Toxics Exposure Studies (MATES-
10 II and MATES-III). The Ground Transportation cumulative analysis uses annual
11 regional growth and development rates from the Southern California Association of
12 Governments (SCAG) Regional Travel Demand Forecasting Model, which is
13 described in Section 3.10. The cumulative analysis of noise impacts uses a hybrid
14 approach, as it relies on both the annual regional growth rates utilized for traffic
15 (because traffic contributes to noise impacts) and the list of related projects
16 documented in Section 4.1.2.

17 For purposes of thresholds, the concept of “cumulatively considerable” effects, as
18 derived from the CEQA guidelines, is used, and is adequately protective and
19 encompassing of, the NEPA concept of cumulatively significant effects.

20 **4.1.2 Projects Considered in the Cumulative** 21 **Analysis**

22 This section describes past, present, and reasonably foreseeable projects in the area
23 that affect cumulative conditions at the Port of Los Angeles (Port).

24 **4.1.2.1 Past Projects**

25 The discussion below describes the past projects that have contributed to cumulative
26 impacts.

27 **History of the Port of Los Angeles**

28 The Port is located in the San Pedro Bay at the southernmost point of Los Angeles
29 County, approximately 20 miles from downtown Los Angeles. Because of its
30 proximity to the Pacific Ocean, the San Pedro Bay has a long history of maritime
31 activity.

32 In 1822, under the newly independent Mexican government San Pedro became a
33 robust commercial center and an attractive home for new settlers. The Mexican
34 government granted three ranchos near the bay, Rancho San Pedro, Rancho Los
35 Palos Verdes, and Rancho Los Cerritos. On February 2, 1848, when California came
36 under American control, business at San Pedro Harbor was booming. It was evident,
37 however, that the Harbor needed to be expanded to accommodate the increasing
38 cargo volume coming into the bay for the growing population in Los Angeles. In
39 1906 the city annexed a 16-mile strip of land on the outskirts of San Pedro and

1 Wilmington. The Port was officially founded in 1907 with the creation of the Los
2 Angeles Board of Harbor Commissioners. Between 1911 and 1912, the first 8,500-
3 foot section of the breakwater was completed, and the Main Channel was widened to
4 800 feet and dredged to a depth of 30 feet to accommodate the largest vessels of that
5 era. Concurrently, Southern Pacific Railroad completed its first major wharf in San
6 Pedro, allowing railcars to efficiently load and unload goods simultaneously. The
7 Port continued to grow through the twentieth century.

8 Following World War II, the Los Angeles Harbor Department (LAHD) launched a
9 broad restoration program. Many of the facilities in the Harbor required maintenance
10 that had been delayed during the war years. In recent years, the advent of
11 containerization has resulted in dramatic changes at the Port. Because of this new
12 mode of shipping, the Port, like major new and old harbors, modernized facilities to
13 meet the needs of the new geometry required by containerization. In addition to the
14 new (container size and shape driven) configurations, larger cranes and concrete
15 wharves (replacing timber) were required to handle the dramatically increased weight
16 of cargo containers. Other major Harbor improvements included deepening the main
17 channel to accommodate the larger container vessels entering the bay, purchasing
18 land to expand terminals, and replacing older wharves that could not bear the
19 increased weight of newer containers.

20 Similarly, the advent of larger and larger vessels for carrying petroleum crude has
21 also resulted in changes in the development of the Port. The most relevant to the
22 proposed Project analyzed in this Draft SEIS/SEIR is the creation of Pier 400, which
23 was created in the mid-1990s from clean dredge material in order to serve several
24 purposes. As noted in the Deep Draft Final Environmental Impact Statement/Final
25 Environmental Impact Report (FEIS/FEIR), these uses were: 1) to relocate existing
26 hazardous bulk facilities away from populated and sensitive use areas in accordance
27 with the approved Port Risk Management Plan (LAHD 1983); 2) to provide a site for
28 a 150-acre (61-ha) container terminal; and 3) to provide a site for a new deep-draft
29 liquid bulk marine terminal. The Deep Draft FEIS/FEIR recognized that expansion
30 and additional improvements were needed to improve efficiencies in handling,
31 storing, and transporting existing and forecasted cargoes, and to provide an area for
32 relocation of hazardous cargo away from critical Port facilities and adjacent
33 communities. In addition to creation of the Pier 400 landfill, the Deep Draft project
34 also included dredging over three miles of channel to a maximum depth of -85 ft
35 Mean Lower Low Water level (MLLW), and dredging the area next to Face C of Pier
36 400 to -81 ft MLLW in order to accommodate VLCCs.

37 **History of the Project Area**

38 Pier 400, upon which the Marine Terminal and other facilities of the proposed Project
39 would be located, was created in the mid-1990s following the 1992 Deep Draft
40 FEIS/FEIR (USACE and LAHD 1992). There is no historic use of the area
41 designated for the Marine Terminal (Face C of Pier 400), nor of the area designated
42 for Tank Farm Site 1. The southeastern portion of Pier 400, to the east of Tank Farm
43 Site 1, is currently set aside for a California Least Tern nesting preserve (see Section
44 3.3.2.5 for a history of the preserve area). Tank Farm Site 2 was recently used for the
45 LAXT dry bulk terminal, including structures for the handling and export of
46 petroleum coke. The sites traversed by Pipeline Segments 1, 2a, 2b, 2c, 3, 4, and 5

1 have been used for various industrial activities, primarily associated with activities at
2 the Port.

3 Historical development of the Project area, the Port, and the general vicinity has had
4 various environmental effects, which are described in individual resource analysis
5 sections below (Section 4.2.2).

6 **4.1.2.2 Current and Future Projects**

7 A total of 88 present or reasonably foreseeable future projects (approved or
8 proposed) were identified within the general vicinity of the Project that could
9 contribute to cumulative impacts. The locations of these projects are shown on
10 Figure 4-1. A corresponding list of the cumulative projects provided by LAHD, the
11 Port of Long Beach, and the Los Angeles Department of Transportation (LADOT) is
12 provided in Table 4-1. (As discussed in Section 4.1.1 and further in the resource-
13 specific sections below, some resource analyses use a projection approach
14 encompassing a larger cumulative geographic scope, and for these resources a larger
15 set of past, present, and reasonably foreseeable future projects was included for
16 analysis of cumulative impacts.)

17 For the purposes of this SEIS/SEIR, the timeframe of current or reasonably
18 anticipated projects extends from 2009 to 2040, and the vicinity is defined as the area
19 over which effects of the proposed Project could contribute to cumulative effects.
20 The cumulative regions of influence for individual resources are documented further
21 in each of the resource-specific subsections in Section 4.2.

22 **4.2 Cumulative Impact Analysis for the** 23 **Proposed Project**

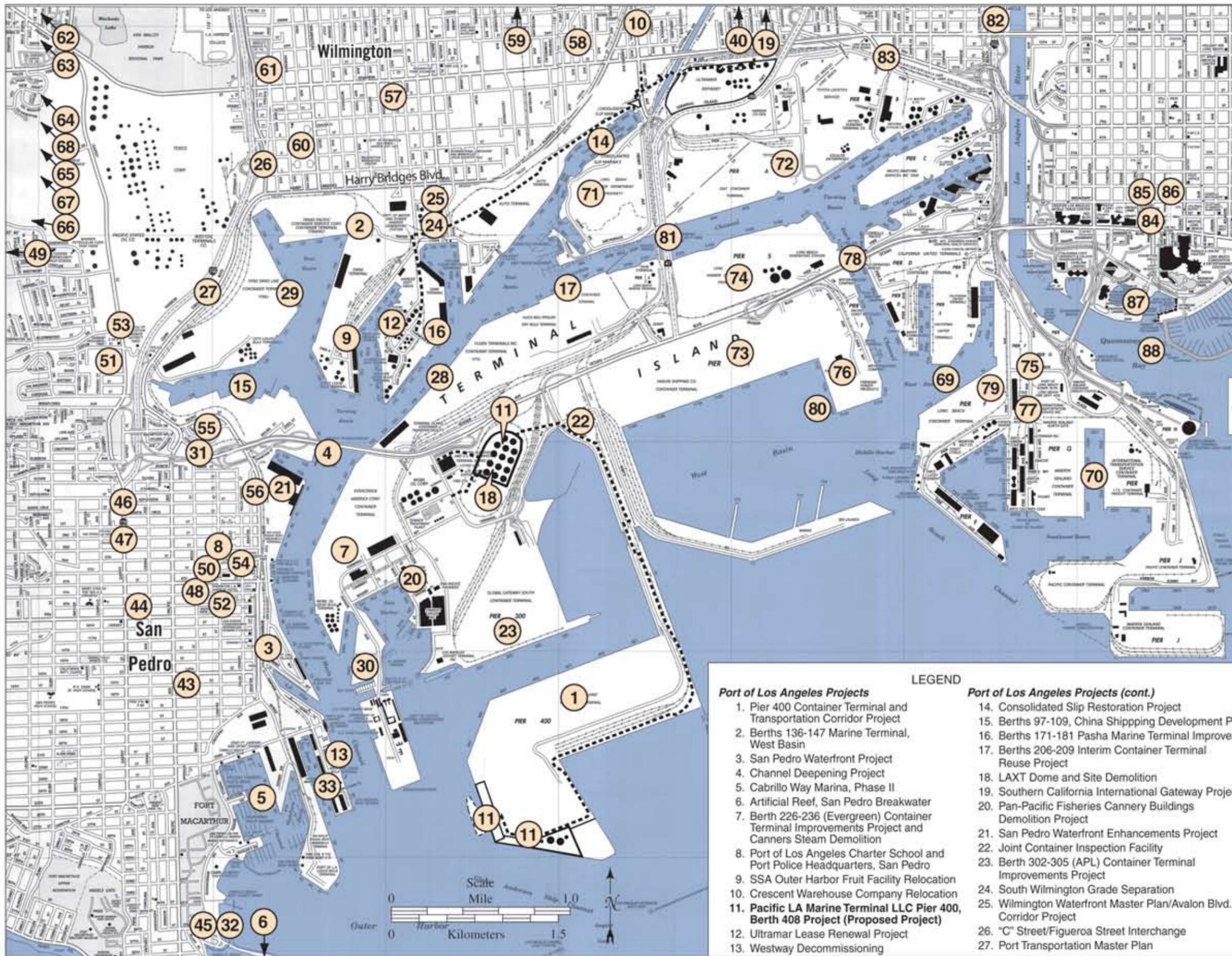
24 The following sections analyze the cumulative impacts identified for each resource
25 area for the proposed Project.

26 **4.2.1 Aesthetics and Visual Resources**

27 **4.2.1.1 Scope of Analysis**

28 The geographic scope of analysis for cumulative impacts on aesthetics and visual
29 resources to which the proposed Project may contribute is the set of public viewing
30 positions from which one may see the proposed Project, either as part of a single
31 view or a series of related views (e.g., a scenic route). Outside of this set of points,
32 the proposed Project would not be within public views and therefore would have no
33 potential to contribute to cumulative visual impacts.

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Source: AAA Map 2005

- Port of Los Angeles Projects (cont.)**
- 28. Berths 212-224 YTI Wharf Upgrades
 - 29. Berths 121-131 Yang Ming Container Terminal
 - 30. Southwest Marine Demolition Project
 - 31. I-110/SR47 Connector Improvement Program
 - 32. Inner Cabrillo Beach Water Quality Improvement Program
 - 33. Proposed Marine Research Center
- Potential Port-Wide Operational Projects**
- 34. Terminal Free Time*
 - 35. Extended Terminal Gates*
 - 36. Shuttle Train/Inland Container Yard*
 - 37. Origin/Destination and Toll Study*
 - 38. Virtual Container Yard*
 - 39. Increased On-Dock Rail Usage*
 - 40. Union Pacific Railroad ICTF Modernization Project
 - 41. Optical Character Recognition*
 - 42. Truck Driver Appointment System*
- Community of San Pedro Projects**
- 43. 15th Street Elementary School
 - 44. Pacific Corridors Redevelopment Project
 - 45. Cabrillo Marine Aquarium Expansion
 - 46. Gas Station and Mini-Mart
 - 47. Fast Food Restaurant w/drive thru
 - 48. Mixed Use Development, 407 Seventh Street
 - 49. Condos., 28000 Western Ave.
 - 50. Pacific Trade Center
 - 51. Single Family Homes (Gaffey St.)
 - 52. Mixed-use Development, 281 West 8th Street
 - 53. Target (Gaffey Street)
 - 54. Palos Verdes Urban Village
 - 55. Temporary Little League Park
 - 56. Condos, 319 N. Harbor Blvd.
- Community of Wilmington Projects**
- 57. Banning Elementary School #1
 - 58. East Wilmington Greenbelt Community Center
 - 59. Distribution Center and Warehouse
 - 60. Dana Strand Public Housing Redevelopment Project
 - 61. Vermont Christian School Expansion
- Projects in Harbor City, Lomita, and Torrance**
- 62. 1437 Lomita Blvd. Condos
 - 63. Harbor City Child Development Center
 - 64. Kaiser Permanente South Bay Master Plan
 - 65. Drive-thru Restaurant, Harbor City
 - 66. Ponte Vista
 - 67. Warehouses, 1351 West Sepulveda Blvd.
 - 68. Sepulveda Industrial Park
- Port of Long Beach Projects**
- 69. Middle Harbor Terminal Redevelopment
 - 70. Piers G & J Terminal Redevelopment
 - 71. Pier A West Remediation Project
 - 72. Pier A East
 - 73. Pier T TTI Terminal, Phase III
 - 74. Pier S Marine Terminal
 - 75. Administration Building Replacement Project
 - 76. Pier T, Long Beach LNG Terminal
 - 77. San Pedro Bay Rail Study
 - 78. Gerald Desmond Bridge Replacement Project
 - 79. Chemoil Marine Terminal Tank Installation
 - 80. POLB Installation Restoration Site 7 (West Basin) Dredging Project
- ACTA and CalTrans Projects**
- 81. Schuyler Heim Bridge Replacement/SR47 Expressway
 - 82. I-710 Major Corridor Study
 - 83. Edison Avenue Closure
- City of Long Beach Projects**
- 84. Renaissance Hotel Project
 - 85. D'Orsay Hotel Project
 - 86. City Place Development
 - 87. The Pike at Rainbow Harbor
 - 88. Queensway Bay Master Plan
- *Project not shown on figure because it is not specific to a location, or the location has not been determined.

Port of Los Angeles Projects

- 1. Pier 400 Container Terminal and Transportation Corridor Project
- 2. Berths 136-147 Marine Terminal, West Basin
- 3. San Pedro Waterfront Project
- 4. Channel Deepening Project
- 5. Cabrillo Way Marina, Phase II
- 6. Artificial Reef, San Pedro Breakwater
- 7. Berth 226-236 (Evergreen) Container Terminal Improvements Project and Cannery Steam Demolition
- 8. Port of Los Angeles Charter School and Port Police Headquarters, San Pedro
- 9. SSA Outer Harbor Fruit Facility Relocation
- 10. Crescent Warehouse Company Relocation
- 11. Pacific LA Marine Terminal LLC Pier 400, Berth 408 Project (Proposed Project)
- 12. Ultramar Lease Renewal Project
- 13. Westway Decommissioning

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Port of Los Angeles Projects (cont.)

- 14. Consolidated Slip Restoration Project
- 15. Berths 97-109, China Shipping Development Project
- 16. Berths 171-181 Pasha Marine Terminal Improvements
- 17. Berths 206-209 Interim Container Terminal Reuse Project
- 18. LAXT Dome and Site Demolition
- 19. Southern California International Gateway Project
- 20. Pan-Pacific Fisheries Cannery Buildings Demolition Project
- 21. San Pedro Waterfront Enhancements Project
- 22. Joint Container Inspection Facility
- 23. Berth 302-305 (APL) Container Terminal Improvements Project
- 24. South Wilmington Grade Separation
- 25. Wilmington Waterfront Master Plan/Avalon Blvd. Corridor Project
- 26. "C" Street/Figueroa Street Interchange
- 27. Port Transportation Master Plan

Figure 4-1. Cumulative Projects Location Map

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Table 4-1. Related and Cumulative Projects

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status¹</i>
<i>Port of Los Angeles Projects</i>			
1	Pier 400 Container Terminal and Transportation Corridor Project, Port of Los Angeles	Element of the 2020 Deep Draft Navigation Improvements Plan: dredging, land filling, and marine terminal construction. The entire Pier 400 site is on a recently constructed landfill in the Port of Los Angeles Outer Harbor. The project is a two-phase development of Pier 400 into a 484-acre (196-hectare) container terminal with rail, highway, and utility access. Phase I consisted of construction of rail and highway access and the first 334 acres (135 hectares) of a marine container terminal, including buildings, a wharf, and an intermodal rail yard. Phase II consisted of construction of the remaining 150 acres (61 hectares) into a container terminal. The EIR certified for the project and the Final EIS identified significant air, transportation, and noise and vibration impacts.	Approved project. Phase I construction completed and terminal opened August 2002. Phase II construction started in April 2003 and was completed in September 2004.
2	Berths 136-147 (TraPac) Marine Terminal, West Basin, Port of Los Angeles	Element of the West Basin Transportation Improvement Projects. Reconfiguration of wharves and backlands. Expansion and redevelopment of the TraPac Terminal.	FEIR certified by Board of Harbor Commissioners December 2007. Construction expected mid/late 2008 to 2010 and 2015 to 2020.
3	San Pedro Waterfront Project, Port of Los Angeles	The "San Pedro Waterfront" Project is a 5 to 7 year plan to develop along the west side of the Main Channel, from the Vincent Thomas Bridge to the 22 nd Street Landing Area Parcel up to and including Crescent Avenue. Key components of the project include construction of a North Harbor Promenade, construction of a Downtown Harbor Promenade, construction of a Downtown Water Feature, enhancements to the existing John S. Gibson Park, construction of a Town Square at the foot of 6th Street, construction of a 7th Street Pier, construction of a Ports O' Call Promenade, development of California Coastal Trail along the waterfront, construction of additional cruise terminal facilities, construction of a Ralph J. Scott Historic Fireboat Display, relocation of the Catalina Cruises Terminal and the SS Lane Victory, extension of the Red Car line, and related parking improvements.	An NOP/NOI was released in August 2005. A revised NOP/NOI was released in December 2006. Draft EIR/EIS being prepared. Construction expected 2010-2015.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Port of Los Angeles Projects (continued)</i>			
4	Channel Deepening Project, Port of Los Angeles	Dredging and sediment disposal. This project deepened the Port of Los Angeles Main Channel to a maximum depth of -53 ft mean lower low water (MLLW; lesser depths are considered as project alternatives) by removing between approximately 3.94 million and 8.5 million cubic yards of sediments. The sediments were disposed at several sites for up to 151 acres (61 hectares) of landfill. The EIR/EIS certified for the project identified significant biology, air, and noise impacts. A Supplemental EIS/EIR is being prepared for new fill locations. The Additional Disposal Capacity Project would provide approximately 4 million cubic yards of disposal capacity needed to complete the Channel Deepening Project and maximize beneficial use of dredged material by constructing lands for eventual terminal development and provide environmental enhancements at various locations in the Port of Los Angeles.	SNOI/SNOP released in October 2005. SEIS/SEIR anticipated mid 2008. Construction expected 2009-2010.
5	Cabrillo Way Marina, Phase II, Port of Los Angeles	Redevelopment of the old marinas in the Watchorn Basin and development of the backland areas for a variety of commercial and recreational uses.	EIR certified December 2, 2003. Construction anticipated 2008-2009.
6	Artificial Reef, San Pedro Breakwater, Port of Los Angeles	Development of an artificial reef site south of the San Pedro Breakwater. Provides opportunity for suitable reuse of clean construction materials and creates bottom topography to promote local sport fishing.	Negative Declaration issued and certified. Project proceeding (2006-2010).
7	Berth 226-236 (Evergreen) Container Terminal Improvements Project and Cannery Steam Demolition.	Proposed redevelopment of existing container terminal, including improvements to wharves, adjacent backland, crane rails, lighting, utilities, new gate complex, grade crossings and modification of adjacent roadways and railroad tracks. Project also includes demolition of two unused buildings and other small accessory structures at the former Cannery's Steam Plant in the Fish Harbor area of the Port.	EIR/EIS to be prepared. NOP/NOI anticipated in 2008. Construction expected 2010-2013.
8	Port of Los Angeles Charter School and Port Police Headquarters, San Pedro, Port of Los Angeles	Proposal to lease property for the Port of Los Angeles Charter School and to construct/develop a Port Police Headquarters and office. 330 S. Centre Street, San Pedro.	EIR certified in August 2005. Construction began in 2008 and expected to be complete in 2010.
9	SSA Outer Harbor Fruit Facility Relocation, Port of Los Angeles	Proposal to relocate the existing fruit import facility at 22nd and Miner to Berth 153.	On hold.

Table 4-1. Related and Cumulative Projects (continued)

No. in Figure 4-1	Project Title and Location	Project Description	Project Status
<i>Port of Los Angeles Projects (continued)</i>			
10	Crescent Warehouse Company Relocation, Port of Los Angeles	Relocate the operations of Crescent Warehouse Company from Port Warehouses 1, 6, 9, and 10 to an existing warehouse at Berth 153. Relocate Catalina Freight operations from Berth 184 to same building at Berth 153.	MND to be prepared. Release anticipated in 2008.
11	Pacific LA Marine Terminal (formerly Pacific Energy) Oil Marine Terminal, Pier 400, Port of Los Angeles	Proposal to construct a Crude Oil Receiving Facility on Pier 400 with tanks at Pier 400 and on Terminal Island, as well as construct new pipelines between berth, storage tanks, and existing pipeline systems. <i>(Project evaluated in this SEIS/SEIR)</i>	NOI/NOP released in June 2004.
12	Ultramar Lease Renewal Project, Port of Los Angeles	Proposal to renew the lease between the Port of Los Angeles and Ultramar Inc., for continued operation of the marine terminal facilities at Berths 163-164, as well as associated tank farms and pipelines. Project includes upgrades to existing facilities to increase the proposed minimum throughput to 10 million barrels per year (mby), compared to the existing 7.5 mby minimum.	Project EIR under preparation; Final EIR expected in 2008. NOP released for public review in April 2004.
13	Westway Decommissioning	Decommissioning of the Westway Terminal along the Main Channel (Berths 70-71). Work includes decommissioning and removing 136 storage tanks with total capacity of 593,000 barrels (bbl).	Remedial planning underway. Decommissioning anticipated 2009.
14	Consolidated Slip Restoration Project	Remediation of contaminated sediment at Consolidated Slip at Port of Los Angeles. Remediation may include capping sediment or removal/disposal to an appropriate facility. Work includes capping and/or treatment of approximately 30,000 cubic yards of contaminated sediments.	Remedial actions are being evaluated in conjunction with Los Angeles Regional Water Quality Control Board (LARWQCB) and U.S. Environmental Protection Agency (USEPA).
15	Berths 97-109, China Shipping Terminal Development Project	Development of the China Shipping Terminal Phase I, II, and III including wharf construction, land fill and terminal construction and backland development.	Draft EIR/EIS released August 2006. Phase I construction completed in 2004. Re-circulated Draft EIR/EIS released April 2008. Construction expected 2009-2015.
16	Berths 171-181, Pasha Marine Terminal Improvements Project, Port of Los Angeles	Redevelopment of existing facilities at Berths 171-181 as an omni (multi-use) facility.	Project EIR on hold.
17	Berths 206-209 Interim Container Terminal Reuse Project, Port of Los Angeles	Proposal to allow interim reuse of former Matson Terminal while implementing green terminal measures.	Final EIR certified. Construction on hold.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Port of Los Angeles Projects (continued)</i>			
18	LAXT Dome and Site Demolition	Demolition and clean up of existing storage dome and associated buildings on LAXT property.	Demolition began in 2007.
19	Southern California International Gateway Project (SCIG), Port of Los Angeles	Construction and operation of a 157 acre dock rail yard intermodal container transfer facility (ICTF) and various associated components, including the relocation of an existing rail operation.	Project EIR under preparation. NOP released September 30, 2005. DEIR expected in Fall 2008.
20	Pan-Pacific Fisheries Cannery Buildings Demolition Project, Port of Los Angeles	Demolition of two unused buildings and other small accessory structures at the former Pan-Pacific Cannery in the Fish Harbor area of the Port.	NOP released October 2005. Draft EIR released July 2006. Final EIR under preparation. Demolition expected mid to late 2008.
21	San Pedro Waterfront Enhancements Project, Port of Los Angeles	Project includes improving existing and development of new pedestrian corridors along the waterfront (4 acres), landscaping, parking, increased waterfront access from upland areas, and creating 16 acres of public open space.	MND approved in April 2006. Construction to begin in early 2008 and will be completed in 2009.
22	Joint Container Inspection Facility, Port of Los Angeles and Port of Long Beach	Construction and operation of a facility to be used to search and inspect random and suspicious containers arriving at the Ports of Los Angeles and Long Beach.	In planning. EIR to be prepared.
23	Berth 302-305 (APL) Container Terminal Improvements Project	Container terminal and wharf improvements project including a terminal expansion area and new berth on the east side of Pier 300. Currently includes 40 acres of fill that was completed as part of the Channel Deepening Project (number 4 above).	EIR/EIS to be prepared. NOP/NOI anticipated in 2008. Construction expected 2010-2012.
24	South Wilmington Grade Separation	An elevated grade separation would be constructed along a portion of Fries Avenue or Marine Avenue, over the existing rail line tracks, to eliminate vehicular traffic delays that would otherwise be caused by trains using the existing rail line and the new ICTF rail yard. The elevated grade would include a connection onto Water Street. There would be a minimum 24.5-foot clearance for rail cars traveling under the grade separation.	Conceptual planning. Current planning indicates summer 2011 completion.
25	Wilmington Waterfront Master Plan (Avalon Blvd. Corridor Project)	Planned development intended to provide waterfront access and promoting development specifically along Avalon Boulevard.	NOP issued March 2008. Draft EIR anticipated Summer 2008. Construction expected early 2009.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Port of Los Angeles Projects (continued)</i>			
26	"C" Street/Figueroa Street Interchange	The "C" Street/ Figueroa Street interchange would be redesigned to include an elevated ramp from Harry Bridges Boulevard to the I-110 Freeway, over John S. Gibson Blvd. There would be a minimum 15-foot clearance for vehicles traveling on John S. Gibson Boulevard. An additional extension would connect from Figueroa Street to the new elevated ramp, over Harry Bridges Blvd.	Conceptual planning. Caltrans approval obtained on Project Study Report.
27	Port Transportation Master Plan	Port-wide transportation master plan for roadways in and around its facilities. Present and future traffic improvement needs are being determined, based on existing and projected traffic volumes. Some improvements under consideration include: I-110/SR-47/Harbor Blvd. interchange improvements; south Wilmington grade separations; and additional traffic capacity analysis for the Vincent Thomas Bridge.	Conceptual planning completed by the end of 2006.
28	Berths 212-224 (YTI) Container Terminal Improvements Project	Wharf modifications at the YTI Marine Terminal Project involves wharf upgrades and backland reconfiguration, including new buildings.	EIR/EIS to be prepared. NOP/NOI anticipated in 2008. Construction expected 2010-2013.
29	Berths 121-131 (Yang Ming) Container Terminal Improvements Project	Reconfiguration of wharves and backlands. Expansion and redevelopment of the Yang Ming Terminal.	EIR/EIS to be prepared. NOP/NOI anticipated in 2008. Construction expected 2010-2013.
30	Southwest Marine Demolition Project	Demolition of buildings and other small accessory structures at the Southwest Marine Shipyard.	Draft EIR released September 2006. Final EIR under preparation. Demolition anticipated late 2008.
31	I-110 / SR 47 Connector Improvement Program	Program may include "C" Street/I-110 access ramp intersection improvements, I-110 NB Ramp/John S. Gibson Blvd. intersection improvements, and SR 47 On-and Off-Ramp at Front Street. These projects would reduce delays and emissions in the I-110/SR 47 area and improve safety and access.	Conceptual planning.
32	Inner Cabrillo Beach Water Quality Improvement Program	Phased improvements at Cabrillo Beach to reduce the wet and dry weather high concentrations of bacteria. Includes sewer and storm drain work, sand replacement, bird excluders, and circulation improvements (groin removal).	Sand replacement phase above high tide line completed in 2007. Additional sand replacement below high tide line anticipated in 2008.
33	Proposed Marine Research Center	Up to 28 acre site for potential marine research facility at City Dock No. 1.	Conceptual planning.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Port of Los Angeles and/or Port of Long Beach Potential Port-Wide Operational Projects</i>			
34	Terminal Free Time	Industry supported program to reduce container storage time and use gates at off-peak travel times.	Program in progress.
35	Extended Terminal Gates (Pier Pass)	Industry supported program to use economic incentives to encourage cargo owners to use terminal gates during off-peak hours.	Program in progress.
36	Shuttle Train/Inland Container Yard	Alameda Corridor Transportation Authority (ACTA) program to encourage rail shuttle service between the ports' on-dock rail facilities and a rail facility in Colton (in the Inland Empire). The pilot program will consist of a daily train to and from Colton. The containers will be trucked between the Colton rail facility and the beneficial cargo owners' facility.	Preliminary study in progress.
37	Origin/Destination and Toll Study	Joint study of the Ports of Los Angeles and Long Beach to identify the origin and destination of international containers in the Los Angeles area, to determine the location of warehouses and identify the routes truck drivers use to move containers to and from the Ports. The bridges serving Terminal Island (Vincent Thomas, Gerald Desmond and Heim Bridge) are not currently designed to handle the trade volumes projected at the San Pedro Bay Ports. In order to identify funding mechanisms to replace/enhance these bridges, the Ports are conducting a toll study to explore potential funding sources for bridge replacement and truck driver behavior if tolls were assessed on the bridges.	Study in progress.
38	Virtual Container Yard	Joint program of ACTA and the Ports of Los Angeles and Long Beach to explore implementing a system that would match an empty container from an import move to one from an empty export move.	Conceptual planning.
39	Increased On-Dock Rail Usage	Joint program of ACTA, the Ports of Los Angeles and Long Beach, shipping lines, and terminal operators to consolidate neighboring terminals' intermodal volume to create larger trains to interior points, thereby reducing need for truck transportation.	Conceptual planning.
40	Union Pacific Railroad ICTF Modernization Project	UP proposal to modernize existing intermodal yard four miles from the Port.	Conceptual planning. Application submitted and the EIR is being completed by the Joint Powers Authority.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Port of Los Angeles and/or Port of Long Beach Potential Port-Wide Operational Projects (continued)</i>			
41	Optical Character Recognition	Ports terminals have implemented OCR technology, which eliminates the need to type container numbers in the computer system. This expedites the truck driver through terminal gates.	Ongoing planning and implementation.
42	Truck Driver Appointment System	Appointment system that provides a pre-notification to terminals regarding which containers are planned to be picked up.	Conceptual planning.
<i>Community of San Pedro Projects</i>			
43	15 th Street Elementary School, San Pedro	Los Angeles Unified School District construction of additional classrooms at 15th Street Elementary School.	Construction completed and school operating. Completed in 2006.
44	Pacific Corridors Redevelopment Project, San Pedro	Development of commercial/retail, manufacturing, and residential components. Construction underway of four housing developments and Welcome Park.	Project underway. Estimated 2032 completion year according to Community Redevelopment Agency of Los Angeles.
45	Cabrillo Marine Aquarium Expansion, San Pedro	Expansion of existing Cabrillo Marine Aquarium.	Construction complete.
46	Gas station and mini-mart	6-pump gas station and 1,390 sf mini-mart at 311 N. Gaffey Street, San Pedro (north of Sepulveda Street).	Project on hold. No construction has started.
47	Fast Food Restaurant w/drive-thru	Construct fast food restaurant with drive through (expand from existing 3000 sf to 4816 sf restaurant). 303 S. Gaffey Street (at 3rd Street), San Pedro.	Construction is complete and restaurant is operating.
48	Mixed use development, 407 Seventh Street	Construct 5,000 sf retail and 87-unit apartment complex. 407 W. Seventh Street (at Mesa St.), San Pedro.	In final stages of construction.
49	Condominiums, 28000 Western Ave.	Construct 140 condominium units. 28000 S. Western Avenue, San Pedro.	In final stages of construction. Building permit cleared March 2006; LADOT Planning Department has no estimated completion year.
50	Pacific Trade Center	Construct 220 housing unit apartments. 255 5th Street, San Pedro (near Centre Street).	In initial stage of construction. Building permit cleared August 2006, but LADOT Planning Department has no estimated completion year.
51	Single Family Homes (Gaffey Street)	Construct 135 single-family homes. About 2 acres. 1427 N. Gaffey St (at Basin St), San Pedro.	In construction. Estimated 2009 completion year according to LADOT Planning Department.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Community of San Pedro Projects (continued)</i>			
52	Mixed-use development, 281 W 8 th Street	Construct 72 condos & 7,000 sf retail. 281 West 8th Street (near Centre Street), San Pedro.	No construction started. LADOT Planning Department has no estimated completion year.
53	Target (Gaffey Street)	Construct 136,000 sf discount superstore. 1605 North Gaffey Street, San Pedro (at W. Capitol Drive).	No construction has started. Estimated 2009 completion year, according to LADOT Planning Department.
54	Palos Verdes Urban Village	Construct 251 condos & 4,000 sf retail space. 550 South Palos Verdes Street, San Pedro.	No construction has started. Estimated 2011 completion year, according to LADOT Planning Department.
55	Temporary Little League Park	Construction of temporary baseball fields for the Eastview Little League at top of Knoll Hill in San Pedro; Knoll Hill Dog Park moved to bottom of Knoll Hill.	Construction completed in fall 2007.
56	Condos, 319 N Harbor Blvd	Construction of 94 unit residential condominiums, 319 N Harbor Blvd, San Pedro.	LADOT Planning Department has no estimated completion year.
<i>Community of Wilmington Projects</i>			
57	Banning Elementary School #1, 500 North Island Avenue, Wilmington	Banning Elementary School No. 1 is a two-building elementary school consisting of one two-story classroom building with subterranean parking garage and a one-story multipurpose building. The school also provides about 2 acres of playground and green space.	Construction completed and school operating. Completed in 2006.
58	East Wilmington Greenbelt Community Center, Wilmington	9,800-square-foot community building, a 25-space parking lot, and landscaped areas.	Construction complete; center opened in 2006.
59	Distribution center and warehouse	135,000 sf distribution center and warehouse on 240,000 sf lot w/47 parking spaces at 755 East L Street, (at McFarland Avenue) in Wilmington.	No construction has started; lot is vacant and bare. LADOT Planning Department has no estimated completion year.
60	Dana Strand Public Housing Redevelopment Project	The existing facility is being torn down and redeveloped to provide a 116-unit affordable housing complex with multifamily rental units, senior units and affordable homes for sale. The plans also include a day care center, lifelong learning center, parks and landscaped open space.	Under construction (construction started in 2005).
61	Vermont Christian School Expansion	Private school expansion to accommodate 72 additional students, for a total of 222 students.	LADOT Planning Department has no estimated completion year.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Projects in Harbor City, Lomita, and Torrance</i>			
62	1437 Lomita Boulevard Condominiums	Construct 160 condominium units and demolish existing closed hospital. 1437 Lomita Boulevard (at Senator Avenue), Harbor City.	Construction is complete and in operation.
63	Harbor City Child Development Center	Conditional use permit to open 50-student pre-school at existing church building (25000 South Normandie Avenue, Harbor City, at Lomita Boulevard).	Public hearing in August 2006.
64	Kaiser Permanente South Bay Master Plan	Construct 303,000 sf medical office building, 42,500 sf records center / office / warehouse, 260 hospital beds. 25825 Vermont Street, Harbor City (at Pacific Coast Hwy).	In Construction. Estimated 2009 completion year, according to LADOT Planning Department.
65	Drive-through restaurant, Harbor City	Construct 2,448 sf fast food restaurant with drive-through. 1608 Pacific Coast Highway, Harbor City (at President Avenue).	In planning phase. Old building still in operation.
66	Ponte Vista	Construct 1725 condos, 575 senior housing units, and 4 baseball fields. 26900 Western Avenue (near Green Hills Park), Lomita. Rolling Hills Prep School being developed in an adjacent lot.	DEIR issued November 2006. LADOT Planning Department reports estimated 2012 completion year.
67	Warehouses, 1351 West Sepulveda Blvd	Construct warehouses with total capacity 400,000 sf. 1351 West Sepulveda Blvd. (at Western Ave.), Torrance.	Project building permit cleared 2/07. LADOT Planning Department estimates completion in 2007.
68	Sepulveda Industrial Park	Construct 154,105 sf industrial park (6 lots). Sepulveda Industrial Park (TT65665) 1309 Sepulveda Boulevard, Torrance (near Normandie Avenue).	No construction started. LADOT Planning Department has no estimated completion year.
<i>Port of Long Beach Projects</i>			
69	Middle Harbor Terminal Redevelopment, Port of Long Beach	Expansion of an existing marine container terminal in the Middle Harbor area of the Port of Long Beach. The project will involve consolidation of two existing container terminals into one 345-acre (138-hectare) terminal. Construction will include approximately 48 acres (19 hectares) of landfill, dredging, wharf construction; construction of an intermodal rail yard; and reconstruction of terminal operations buildings. The Initial Study prepared for this project identified significant air, public health, transportation, biological, and water quality impacts.	Project EIS/EIR released May 2008. NOP/NOI released December 20, 2005. Anticipated construction 2008-2025.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Port of Long Beach Projects (continued)</i>			
70	Piers G & J Terminal Redevelopment Project, Port of Long Beach	Redevelopment of two existing marine container terminals into one terminal. The Piers G and J redevelopment project is in the Southeast Harbor Planning District area of the Port of Long Beach. The project will develop a marine terminal of up to 315 acres by consolidating two existing terminals on Piers G and J and several surrounding parcels. Construction will occur in four phases and will include approximately 53 acres of landfills, dredging, concrete wharves, rock dikes, and road and railway improvements. The EIR prepared for this project identified potentially significant impacts to air quality and geologic resources.	Approved project. Construction underway (anticipated construction period is 2005-2015).
71	Pier A West Remediation Project, Port of Long Beach	Remediation of approximately 90 acres of oil production land, including remediation of soil and groundwater contamination, relocation of oil wells, filling, and paving.	Project EIR/EIS under preparation. NOP/NOI released January 26, 2006. Expected duration through 2011.
72	Pier A East, Port of Long Beach	Redevelopment of 32 acres of existing auto storage area into container terminal.	EIR to be prepared.
73	Pier T, TTI (formerly Hanjin) Terminal, Phase III, Port of Long Beach	Development of a container terminal, liquid bulk facility and satellite launch facility. The Port of Long Beach is redeveloping the former Long Beach Naval Complex on Terminal Island. The project consists of expanding a 300-acre marine container terminal to 375 acres, including a wharf, terminal operations buildings, utilities, and rail yard. Construction includes 22 acres of landfill. The SEIS/EIR certified for this project identified significant air quality, transportation, public health and safety, cultural resources, biological resources, and vibration impacts.	Approved project. Final phase of construction underway.
74	Pier S Marine Terminal, Port of Long Beach	Development of a 150-acre container terminal and construction of navigational safety improvements to the Back Channel.	EIS/EIR to be prepared. Assessment/ construction expected 2007-2012.
75	Administration Building Replacement Project, Port of Long Beach	Replacement of the existing Port Administration Building with a new facility on an adjacent site.	EIR being prepared. Assessment/ construction expected 2009-2012.
76	Sound Energy Solutions-Pier T, Long Beach Liquefied Natural Gas (LNG) Terminal, Port of Long Beach	Construction of a 25-acre (10-hectare) liquefied natural gas (LNG) import terminal facility including pipeline and wharf construction on a portion of Pier T on Terminal Island within the Port of Long Beach.	Final EIR/EIS completed. Project disapproved by Board of Harbor Commissioners January 2007; legal challenge underway.
77	San Pedro Bay Rail Study	Port-wide rail transportation plan with multiple projects in and around Harbor District.	EIR to be prepared.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>Port of Long Beach Projects (continued)</i>			
78	Gerald Desmond Bridge Replacement Project, Port of Long Beach and Caltrans/FHWA	Replacement of the existing 4-lane Gerald Desmond highway bridge over the Port of Long Beach Back Channel with a new 6- to 8-lane bridge.	NOP/NOI released in 2005. EIR/EA released in 2005; Recirculated EIR/EA being prepared. Anticipated construction 2008-2013.
79	Chemoil Marine Terminal, Tank Installation, Port of Long Beach	Construction of two storage tanks for refined petroleum products and associated relocation of utilities and reconfiguration of adjoining marine terminal uses between Berths F210 and F211 on Pier F.	NOP released June 2007. EIR to be prepared.
80	Port of Long Beach Installation Restoration Site 7 (West Basin) Dredging Project	Removal of about 700,000 cubic yards of contaminated sediments at the Port of Long Beach, with beneficial/sustainable reuse of the material in the Pier G landfill.	In planning stages. Dredging is expected in 2008-2009.
<i>Alameda Corridor Transportation Authority and Caltrans Projects</i>			
81	Schuyler Heim Bridge Replacement and State Route (SR) 47 Terminal Island Expressway	ACTA/Caltrans project to replace the Schuyler Heim Bridge with a fixed structure and improve the SR 47/Henry Ford Avenue/Alameda Street transportation corridor by constructing an elevated expressway from the Heim Bridge to SR 1 (Pacific Coast Highway) and flyover from eastbound Ocean Boulevard to northbound SR 47.	ACTA and Caltrans issued Draft EIS/EIR August 2007. Final EIS/EIR expected spring 2008. Anticipated construction 2009-2011 (for SR47 and bridge) and 2015-2017 (for flyover).
82	I-710 (Long Beach Freeway) Major Corridor Study	Develop multi-modal, timely, cost-effective transportation solutions to traffic congestion and other mobility problems along approximately 18 miles of the I-710, between the San Pedro Bay ports and State Route 60. Early Action Projects include: a) Port Terminus: Reconfiguration of SR 1 (Pacific Coast Highway) and Anaheim Interchange, and expansion of the open/green space at Cesar Chavez Park. b) Mid Corridor Interchange: Reconfigurations Project for Firestone Blvd. Interchange and Atlantic/Bandini Interchange.	Conceptual Planning.
83	Edison Avenue Closure	Close a short section of Edison Avenue between Ninth and Pier B streets to improve public safety and traffic by rerouting cars and trucks away from three rail lines that cross Edison at Pier B Street.	Initial Study and Negative Declaration released June 2007.
<i>City of Long Beach Projects</i>			
84	Renaissance Hotel Project, City of Long Beach	Development of a 374-room hotel on the southeast corner of Ocean Boulevard and the Promenade.	Approved project. Construction complete.

Table 4-1. Related and Cumulative Projects (continued)

<i>No. in Figure 4-1</i>	<i>Project Title and Location</i>	<i>Project Description</i>	<i>Project Status</i>
<i>City of Long Beach Projects (continued)</i>			
85	D'Orsay Hotel Project, City of Long Beach	Development of a hotel. The D'Orsay Project is a 162-room boutique style hotel on the northwest corner of Broadway and the Promenade.	Approved project. Construction underway. Anticipated completion in Fall 2008.
86	City Place Development, City of Long Beach	Development of commercial and residential space. The former Long Beach Plaza Mall, downtown between 3rd and 6th Streets and between Long Beach Boulevard and Pacific Avenue, is now under construction. The approved project will redevelop the former mall area and two blocks of vacant land east of Long Beach Boulevard with approximately 450,000 square feet of commercial space and up to 200 residential units. The EIR prepared for this project identified significant air quality impacts.	Construction complete. Completed in 2005.
87	The Pike at Rainbow Harbor, City of Long Beach	Commercial use development. This project site is south of Ocean Boulevard on the site of the former Pike Amusement Park between Pine and Magnolia Avenues in Long Beach. This approved project includes approximately 770 residential units, a 500-room hotel, and 25,000 square ft of commercial space. The EIR prepared for this project identified significant air quality, cultural resources, noise, public service, and transportation impacts.	Approved project. Construction complete.
88	Queensway Bay Master Plan, City of Long Beach	Construction of Long Beach Aquarium, new urban harbor, office building, and entertainment complex. This project, designed to create a major waterfront attraction in downtown Long Beach, includes a recreational harbor, 150,000-square-foot aquarium, 125,000-square-foot entertainment complex, 59,000 square feet of restaurant/retail space, an 800-room hotel, 95,000 square feet of commercial office space, and 487 boat slips in and around Queensway Bay. The recreational harbor and aquarium have been completed. The EIR certified for this project identified significant transportation impacts.	Approved project. Construction complete.
<i>Note:</i> 1. Construction date for Port projects based on an assumption that the project would be approved by the LAHD.			

1 The visual changes that would be brought about by the proposed Project would take
2 place in the distinctive landscape region created by the Ports of Los Angeles and
3 Long Beach, which collectively constitute one of the largest port complexes in the
4 world. In this area, over the course of the past century, the construction of
5 breakwaters, the dredging of channels, filling for creation of berths and terminals,
6 and construction of the infrastructure required to support Port operations have
7 completely transformed the original natural setting to create a landscape that is highly
8 engineered and is visually dominated by large-scale man-made features.

9 Past, present, planned, and foreseeable future development that could contribute to
10 cumulative impacts on aesthetics and visual resources are those that have involved, or
11 would involve, grading, paving, landscaping, construction of roads, buildings and
12 other working port facilities, as well as the presence and operation of upland
13 equipment, such as gantry cranes, rail and trucking facilities and backland storage
14 sites. Views may also be affected by in-water activities such as dredging, filling,
15 wharf demolition and construction, and container ship traffic.

16 The significance criteria used for the cumulative analysis are the same as those used
17 for the proposed Project in Section 3.1.4.2. The criteria for **Impacts AES-1, AES-2,**
18 **AES-4** and **AES-5** apply only to CEQA analyses, while those for **Impacts AES-3**
19 and **AES-6** apply to both CEQA and NEPA analyses.

20 **4.2.1.2 Cumulative Impact AES-1: Adverse Impacts on a Scenic** 21 **Vista – Less Than Cumulatively Considerable**

22 The issue addressed by **Cumulative Impact AES-1** is specifically a CEQA-stated
23 concern over whether the proposed Project would considerably contribute to the
24 adverse effect of past, present, and future projects' obstruction of a scenic vista or
25 interference with public access to it. Such obstruction/interference of a scenic vista is
26 not a specific issue relevant to a NEPA impact determination. The *L.A. CEQA*
27 *Thresholds Guide* (City of Los Angeles 2006) lists the following factors as relevant
28 to this CEQA issue:

- 29 • The nature and quality of recognized or valued views (the natural or man-
30 made setting and specific features of visual interest);
- 31 • The extent of the obstruction; and
- 32 • The extent of the effect on recognized views from public roadways, bike
33 paths, and trails.

34 Note that the third issue area within **AES-1**, the effect on views from roadways, bike
35 paths and trails, is not relevant in the context of these views, as discussed in Section
36 3.1.4.3.1.1. Of the critical public views chosen for detailed assessment, those from
37 Cabrillo Beach, its vicinity, the San Pedro Bluffs residential area, and Lookout Point
38 Park are deemed to be valued, if not specifically recognized for their scenic quality
39 (Section 3.1.4.3.1.1).

1 **Impacts of Past, Present, and Reasonably Foreseeable Future**
2 **Projects**

3 **Port of Los Angeles**

4 The visual changes that would be brought about by the proposed Project would be
5 taking place in the distinctive landscape region created by the Ports of Los Angeles
6 and Long Beach, which collectively constitute one of the largest port complexes in
7 the world. In this area, over the course of the past century, the construction of
8 breakwaters, the dredging of channels, filling for creation of berths and terminals,
9 and construction of the infrastructure required to support Port operations have
10 completely transformed the original natural setting to create a landscape that is highly
11 engineered, nearly entirely altered, and visually dominated by large-scale man-made
12 features. Past projects at the Port have had a demonstrable negative effect related to
13 elimination of natural features, reductions in views from the surrounding area of the
14 open waters of the Port’s channels and basins, and an intensification of the level of
15 development that is visible. For example, development of the Pier 400 Container
16 Terminal and Transportation Corridor Project reduced views of open waters in views
17 from hillside areas in San Pedro, and this project increased the concentration of large-
18 scale developed facilities in the Port complex. The result of these past changes have
19 been cumulatively considerable and significant.

20 **Cabrillo Beach and Vicinity, San Pedro Bluffs Residential Area, and Lookout**
21 **Point Park**

22 As stated, the views pertinent to the assessment of **Cumulative Impact AES-1** are
23 those from Cabrillo Beach and its vicinity (Viewing Positions 1 and 2), San Pedro
24 Bluffs residential area (Viewing Position 3), and those from Lookout Point Park
25 (Viewing Position 4). Figures 3.1-3, 3.1-4, and 3.1-5 collectively show the panorama
26 available from the Cabrillo Beach Fishing Pier, looking west to northeast. Figure 3.1-7
27 is the view from Cabrillo Beach, extending from the northeast to the southeast over
28 the Los Angeles Liquid Bulk Terminal and Reservation Point toward the APM
29 Terminal on Pier 400. Finally, Figure 3.1-8 represents the views toward the proposed
30 Project site from the San Pedro Bluffs residential area (upper image) and Lookout
31 Point Park lower image. These images represent the cumulative effect of actions
32 taken over the last century which, as noted, has been the creation of a distinct
33 character type within the region, that of a highly engineered, working port. For the
34 views from Cabrillo Beach and its vicinity, as well as from Lookout Point Park, the
35 context for the views is the character of a working port (Section 3.1.2.2.3.1 and
36 Section 3.1.2.2.3.2). All features within these views are consistent with that character
37 are coherently arrayed, presenting a readily apprehended composition of geometric
38 forms, focal points, and the water surface. Visual quality is high, the existing conditions
39 being rated a Visual Modification Class 1 (Sections 3.1.2.2.3.1 and 3.1.2.2.3.2). For
40 views from the San Pedro Bluffs residential area, however, the context is that of a
41 residential area. For much of the available panorama, the features of the Port dominate
42 attention and are not consistent with the character of a residential area. For these views,
43 the existing visual condition is rated a Visual Modification Class 4 (Sections 3.1.2.2.3.2).

1 Related projects shown in Figure 4-1 and Table 4-1 that are within the field of view
 2 from Cabrillo Beach and its vicinity, from San Pedro Bluffs residential area, and
 3 from Lookout Point Park include:

- 4 • Project #1: Pier 400 Container Terminal and Transportation Corridor Project
 5 (APM Container Terminal). The 1992 Deep Draft FEIS/FEIR concluded that
 6 unavoidable significant visual impacts would result from construction of the
 7 Pier 400 landfill project due to the permanent loss of open water views and
 8 because the landfill would initially appear “stark or blank, fairly light in
 9 color...and with no texture (no development)” (Section 3.1.1.1). The report
 10 further concluded that while the loss of open water from views would be
 11 permanent, the stark character of the undeveloped, flat and barren fill areas
 12 would disappear with the development of terminal facilities, which would
 13 compatibly blend with existing Port activities. The EIR certified for the Pier
 14 400 Container Terminal and Transportation Corridor Project (APM
 15 Container Terminal) project identified no significant visual impacts. The
 16 context for the views toward Pier 400 from Cabrillo Beach and its vicinity at
 17 the time Project #1 started construction was that of the working Port
 18 environment (Section 3.1.2.2.3.1). The quality of the view, together with the
 19 beach’s serving recreation uses, indicates that views of the Port environment
 20 from Cabrillo Beach and other recreation facilities in its vicinity are valued,
 21 if not specifically recognized by policies or objectives stated in the City of
 22 Los Angeles General Plan or its Elements. With the completion of Project
 23 #1, distant views of the Port of Long Beach were substantially obstructed.
 24 However, the Port facilities constructed at Pier 400 are features of a working
 25 port. They have supplanted those port features that they obscure, and there is
 26 no net loss from view of Port features. Under **Impact AES-1**, relative to
 27 views from Cabrillo Beach and its vicinity there has been no adverse impact
 28 due to the construction and operation of Project #1.

29 From the elevated positions along the San Pedro Bluffs residential area and
 30 at Lookout Point Park, the Port views also are not interrupted by the facilities
 31 at Pier 400 for the same reason. These facilities supplant those they obstruct
 32 from view. Therefore, under **Impact AES-1**, there would be no adverse
 33 impact on the views from the San Pedro Bluffs residential area or from
 34 Lookout Point Park.

- 35 • Project #5: Cabrillo Way Marina, Phase II. This project consists of the
 36 redevelopment of 42.4 acres of land and 38.9 acres of water for a marina and
 37 marina-related facilities in the Watchorn Basin section of the West Channel.
 38 Included in the project is a proposed Marina Village Retail Center, which
 39 would feature retail, restaurant and office space. This project, particularly
 40 when compared to the gantry cranes at Piers 300 and 400, would be low in
 41 profile and would have no potential to block distant views of the mountains
 42 to the northeast. From Cabrillo Beach and its vicinity, from the San Pedro
 43 Bluffs residential area, and from Lookout Point Park, there would be no
 44 adverse impact relative to **Impact AES-1**.
- 45 • Project #6: Artificial Reef, San Pedro Breakwater. Project #6 entails the
 46 development of an artificial reef south of the San Pedro Breakwater. Clean
 47 construction materials will be barged to the site for emplacement. It is

1 assumed that on-barge cranes will be used to deposit the materials and that
2 the barges will be present for brief periods of time.

3 The views which would be affected by this project include those directed to
4 the south from the Cabrillo Beach breakwater toward the open ocean and
5 Catalina Island. The obstruction of views in this direction, however, is not
6 relevant to the assessment of cumulative visual impacts on the views in the
7 opposite direction from Cabrillo Beach which would include the proposed
8 Project.

9 From the San Pedro Bluffs residential area, the valued views are judged to be
10 those which include the outer harbor and the open ocean to the southeast
11 (Section 3.1.4.3.1.3). However, while Project #6 is to the southeast and is
12 within a line of sight toward the outer harbor and open ocean, the substantial
13 elevation of viewing positions along the bluffs is such that this project's low-
14 profile features could not project noticeably into scene.

15 Relative to the view from Lookout Point Park, the views of the Port are
16 considered to be implicitly valued because the purpose of the park is to
17 provide such views. Project #6, though, is to the southwest of the park, and
18 views from the park are directed to the northeast and east. Therefore, features
19 of this project cannot interfere with views of the Port features within view.
20 Relative to **Impact AES-1** there would be no adverse impact.

- 21 • Project #33: Proposed Marine Research Center. City Dock No. 1 is the site
22 for a marine research facility which would includes various laboratories, a
23 research and development park, and educational support facilities. The site
24 would be up to 28 acres in size and is in the conceptual stage of planning.
25 Therefore, there is no specific information on the design of the facility or its
26 construction. It is assumed that the structures would not be higher than one or
27 two stories and that the multi-story Warehouse No. 1 may be removed to
28 accommodate the research center.

29 Based on the above assumptions, this project would not obstruct scenic vistas
30 or panoramic views currently available from Cabrillo Beach and its vicinity
31 (represented by Viewing Positions 1 and 2). This is even truer of elevated
32 positions along the San Pedro Bluffs, as represented by the views from the
33 San Pedro Bluffs residential area and from Lookout Point Park (Figure 3.1-8)
34 due to the vertical angle of view relative to the plane of City Dock No. 1.
35 Regarding Viewing Positions 1 and 2, the possible removal of the multi-story
36 Warehouse 1 (265,000 sq ft) would reduce to a minimal extent view
37 obstruction into the interior of the Port but not substantially so. Relative to
38 **Impact AES-1**, there would be no adverse impact due to this project.

- 39 • Project #13: Westway Decommissioning. This project is to occur along
40 Berths 70-71 at City Dock No. 1 in 2009 and includes removal of 136 storage
41 tanks. These tanks are not within views from Cabrillo Beach and its vicinity
42 due to the sheds along the west side of City Dock No. 1 that intervene in
43 these views. Concerning views from the San Pedro Bluffs residential area
44 and Lookout Point Park, the viewing positions there are elevated such that
45 the tanks do not block views of Port facilities or features to the east of the

1 Port. Removing the tanks would not affect Port views, so this project would
2 cause no adverse impact relative to **Impact AES-1**.

- 3 • Project #23: Berth 302-305 (APL) Container Terminal Improvements. This
4 project includes a terminal expansion area and new berth on the east side of
5 Pier 300. It is assumed that an undisclosed number of the gantry cranes
6 would be installed along the new berth. These cranes, being along the east
7 side of Pier 300, would not be noticeable from Cabrillo Beach because of
8 intervening structures, such as the much closer gantry cranes along Berths
9 302-304 and/or the facilities at the Port of Los Angeles Liquid Bulk Terminal
10 (see Figures 3.1-4, 3.1-5, and 3.1-7). Given the location of the improvements
11 and the facilities which intercede in views from Cabrillo Beach and its
12 vicinity, Project #23 has no potential to interrupt or block views of Port
13 features. There would be no adverse impact under **Impact AES-1** relative to
14 those views.

15 Views from the San Pedro Bluffs residential area and from Lookout Point
16 Park are substantially elevated; gantry cranes along the east side of Pier 300
17 would therefore be at least partially within view from here (see Figure 3.1-8).
18 However, because they would be installed along a new berth on the east side
19 of Pier 300, they have no potential to block Port facilities from view as
20 nearly all Port facilities are west (in front of) of the proposed berth.
21 Therefore, there would be no adverse impact under **Impact AES-1**.

- 22 • Project #32: Inner Cabrillo Beach Water Quality Improvement Program. The
23 work under this project includes sewer and storm drain work, sand
24 replacement, bird excluders and groin removal. Most, if not all, of the sewer
25 and storm drain work has been completed. The first phase of sand
26 replacement above the high tide line was completed in 2007. The remaining
27 sand replacement work, that occurring below the high tide line, is expected to
28 be completed in 2008. The groin removal work has not yet been done, but is
29 expected to occur in 2008. In summary, nearly all of the work contemplated
30 for this project has already been done or will be completed in 2008. There is
31 no evidence of any effects on views from the beach apparent as of March,
32 2008 due to this project. Any which may occur in 2008 will be temporary.

33 In conclusion, relative to **Impact AES-1**, this project has not caused, and is
34 not expected to cause, other than temporary adverse effects and, therefore,
35 cannot contribute cumulatively to the effect of the other projects considered
36 in this cumulative impact assessment.

- 37 • Project #45: Cabrillo Marine Aquarium Expansion. This project has been
38 completed. Since the Aquarium is located along the west edge of the parking
39 lot at Cabrillo Beach and also is well below the nearest residences further to
40 the west, this structure does not block Port views from Cabrillo Beach and its
41 vicinity or from the residential area to the west of the aquarium. Therefore,
42 this project has caused no adverse impact relative to **Impact AES-1**.

1 **Summary**

2 Relative to **Cumulative Impact AES-1** and views from Cabrillo Beach and vicinity,
3 San Pedro Bluffs residential area, and Lookout Park, Projects #5, #6, #33, #13, and
4 #23 planned for the future, are not expected to cause an adverse impact under **Impact**
5 **AES-1**. Projects #1 and #45, which have been completed, have caused no adverse
6 impact and will not contribute toward any adverse cumulative impact relative to this
7 impact category.

8 Project #32 cannot contribute cumulatively to the effect of the other projects
9 considered in this assessment, as the work has been mostly completed and has left no
10 residual visual effects; the part of the work yet to be completed may cause temporary,
11 adverse effects that will cease immediately upon project completion, leaving no
12 residual visual effect.

13 As noted, past projects at the Port (those completed prior to June 2004) have had a
14 demonstrable negative effect on views from the surrounding area and have resulted in
15 a cumulatively significant impact relative to **Cumulative Impact AES-1**.

16 **Contribution of the Proposed Project**

17 The proposed Project's effect on the views from Cabrillo Beach and its vicinity, San
18 Pedro Bluffs residential area, and Lookout Point Park relative to **Impact AES-1** is
19 discussed in detail in Section 3.1.4.3.1.3. They are summarized as follows.

20 **Cabrillo Beach and Vicinity.** Regarding the views from Cabrillo Beach and its vicinity,
21 they are valued, if not specifically recognized by policies or objectives stated in the
22 City of Los Angeles General Plan or its Elements. During the construction phase,
23 equipment and activities would not noticeably block Port features from view. When
24 completed, while proposed Project features would block some APM Terminal
25 backland facilities from sight, as well as distant gantry cranes in the Port of Long
26 Beach, the blockage would not be appreciable in the context of the breadth of views
27 available from the beach. Also, the proposed Project's facilities and the marine
28 tankers docking there are features that would be consistent with the Port's features
29 and considered part of the valued views. They would supplant those Port features
30 blocked from view, and, on balance, they would effect no net obstruction. In
31 summary, there would be no adverse impact under **Impact AES-1** for views from
32 Cabrillo Beach and its vicinity.

33 **San Pedro Bluffs Residential Area.** For views from this residential area toward the
34 proposed Project, the Port's features are not congruent with those associated with a
35 residential area and visual quality is low, rated Visual Modification Class 4. There
36 are no indications that they are recognized as being valued in policies or objectives
37 set forth in the City of Los Angeles General Plan or its Elements. As defined in
38 Section 3.1.4.2.1, then, views directed toward the Port are not deemed in this
39 assessment to be recognized or valued.

40 However, the views from the residences in this area also include views of the outer
41 harbor and the open ocean beyond, which include the presence and movement of

1 sailboats, ferries and cruise ships, and are assumed to be regarded as valued, if not
2 specifically recognized, for their scenic quality.

3 Views of the Port and views of the outer harbor and open ocean are seen in
4 conjunction with one another. However, construction and operational features of the
5 proposed Project would not intercede in the valued views of the outer harbor and the
6 open ocean, as such views are directed to the southeast, away from the proposed
7 Project site. Therefore, there would be no potential for Project features to block or
8 otherwise reduce the public's access to the valued views from the San Pedro Bluffs
9 residential area.

10 **Lookout Point Park Views.** There are indications that the views from this park are
11 valued by the public: the quality of views from there is high in the context of the
12 Port's visual character and the park was created to offer these views to the public.
13 While proposed Project features would block some APM Terminal backland features
14 from view and slightly interrupt views of the ocean east of Tank Farm Site 1, the
15 blockage would not be appreciable in the context of the breadth of views available,
16 the viewing distance, and the vertical angle of the viewing position relative to plane
17 of Pier 400. Also, as was stated relative to views from Cabrillo Beach, the proposed
18 Project's facilities and the marine tankers docking there are features that would be
19 consistent with the Port's features and would be considered part of the valued views.
20 As for Cabrillo Beach-based views, the proposed Project's features would supplant
21 those Port features blocked from view, and, on balance, they would effect no
22 noticeable net obstruction.

23 **Conclusion.** Past projects have caused a significant cumulative impact under
24 **Cumulative Impact AES-1.** However, the proposed Project would not interfere with
25 the public's visual access to these views (would not interrupt or block the view) and,
26 consequently, would cause no adverse impact under **Impact AES-1.** Therefore, the
27 proposed Project would not make a cumulatively considerable contribution to the
28 significant cumulative impact of related projects under **Cumulative Impact AES-1.**

29 **Mitigation Measures and Residual Cumulative Impacts**

30 None is required, as the contribution of the proposed Project to cumulative impacts
31 would not be considerable under CEQA. As noted, **Cumulative Impact AES-1** is
32 not a NEPA issue of concern.

33 **4.2.1.3 Cumulative Impact AES-2: Damage to Scenic** 34 **Resources within View from a State Scenic Highway –** 35 **No Impact**

36 **Cumulative Impact AES-2** is specifically a CEQA-stated concern over whether the
37 proposed Project would considerably contribute to the adverse effect of past, present
38 and future projects on the scenic resources within view from a state scenic highway.
39 An adverse impact on scenic resources within view from a scenic highway is not a
40 specific issue relevant to a NEPA impact determination. The *L.A. CEQA Thresholds*
41 *Guide* (City of Los Angeles 2006) expands this CEQA issue to address views from
42 scenic routes, corridors and parkways. As noted in Section 3.1.2.1.2.4, while there

1 are no state-designated scenic highways in the vicinity of the proposed Project, a City
2 of Los Angeles-designated scenic route flanks the Port to the west. However, views
3 from the Los Angeles City-designated “scenic highway” are not critical to the
4 analyses in this assessment for the following reasons (Section 3.1.2.1.4):

- 5 • Views toward the proposed Project from the route are substantially blocked
6 by Port facilities, residential development, topography, landscaping, or a
7 combination of these factors.
- 8 • Where the proposed Project site is visible it is not within the normal field of
9 view of motorists, being from 60 to 90 degrees or more away from the
10 direction of travel, depending on the location and direction of travel.

11 Since the proposed Project categorically would not be within public views from the
12 designated Scenic Highway and would have no impact relative to **Impact AES-2**, it
13 would make no contribution to cumulative impacts in this area. Therefore, it is not
14 necessary to document the effects of past, present, and reasonably foreseeable future
15 projects in terms of **Cumulative Impact AES-2**.

16 **4.2.1.4 Cumulative Impact AES-3: Degradation of Existing** 17 **Visual Character or Quality of a Site and its** 18 **Surroundings – Less Than Cumulatively Considerable**

19 The issue addressed by **Cumulative Impact AES-3** is both a CEQA-stated and
20 NEPA-related concern over whether the proposed Project would considerably
21 contribute to the adverse effect of past, present and future projects on the existing
22 visual character or quality of a site and its surroundings. The *L.A. CEQA Thresholds*
23 *Guide* (City of Los Angeles 2006) lists six factors as relevant to this CEQA issue. Of
24 these, two are relevant to the proposed Project (Section 3.1.4.3.1.5):

- 25 • The degree of contrast between proposed features and those existing features
26 that represent the valued aesthetic image of an area; and
- 27 • The degree to which the project would contribute to the aesthetic value of an
28 area.

29 To variable extents, features of the proposed Project would be within sight from
30 Cabrillo Beach, its vicinity, San Pedro Bluffs residential area, Lookout Point Park,
31 and the Main Channel and Outer Harbor. However, regarding views from the Main
32 Channel and Outer Harbor, there is no obvious evidence that those departing or
33 entering the Port on pleasure craft, ferries and cruise ships, those visiting the tourist
34 attractions within the Ports O’ Call Village, or those frequenting the San Pedro
35 Marina especially recognize close views of industrial facilities as presenting a
36 “valued aesthetic image.” Consequently, **Cumulative Impact AES-3** is not
37 considered applicable to views from the Main Channel.

38 Therefore, the scope of the assessment of **Cumulative Impact AES-3** includes only
39 the views from Cabrillo Beach and its vicinity, San Pedro Bluffs residential area, and
40 Lookout Point Park. The context for two of these sets of views—those from the
41 Cabrillo Beach and its vicinity, and from Lookout Point Park—is the distinctive
42 marine industrial character of the Port. That for the other set—views from San Pedro

Bluffs residential area—is the residential character of the surrounding neighborhoods. The character and CEQA Baseline visual condition of these views is described in detail in Sections 3.1.2.2.3. To summarize:

- For current views from Cabrillo Beach and its vicinity, and from Lookout Point Park, relative to the CEQA Baseline all features in view are inherent to this character type and coherently arrayed, presenting a readily apprehended composition of geometric forms, focal points, and the water surface. Therefore, visual quality is high for these views, their existing condition being rated as *Visual Modification Class 1* (Sections 3.1.2.2.3.1 and 3.1.2.2.3.2).
- Relative to views from the San Pedro Bluffs residential area, however, the context is the residential character of the immediate area and not that of the Port in the distance. The industrial character of the Port is incongruous with that of a residential area, and the Port’s features dominate views directed to the northeast. The existing visual condition for these views is rated as *Visual Modification Class 4* (Section 3.1.2.2.3.2).

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Port of Los Angeles

The visual changes that would be brought about by the proposed Project would be taking place in the distinctive landscape region created by the Ports of Los Angeles and Long Beach, which collectively constitute one of the largest port complexes in the world. In this area, over the course of the past century, the construction of breakwaters, the dredging of channels, filling for creation of berths and terminals, and construction of the infrastructure required to support Port operations have completely transformed the original natural setting to create a landscape that is highly engineered, nearly entirely altered, and visually dominated by large-scale man-made features. Past projects at the Port have had a demonstrable negative effect related to elimination of natural features, reductions in views from the surrounding area of the open waters of the Port’s channels and basins, and an intensification of the level of development that is visible. For example, development of the Pier 400 Container Terminal and Transportation Corridor Project reduced views of open waters in views from hillside areas in San Pedro, and this project increased the concentration of large-scale developed facilities in the Port complex. The result of these past changes have been cumulatively considerable and significant.

Cabrillo Beach and Vicinity, San Pedro Bluffs Residential Area, and Lookout Point Park

As stated, the views pertinent to the assessment of **Cumulative Impact AES-3** are those from Cabrillo Beach and its vicinity, from the San Pedro Bluffs residential area, and those from Lookout Point Park. Figures 3.1-3, 3.1-4, and 3.1-5 collectively show the panorama available from the Cabrillo Beach Fishing Pier, looking west to northeast. Figure 3.1-7 is the view from Cabrillo Beach, extending from the northeast to the southeast over the Los Angeles Liquid Bulk Terminal and Reservation Point toward the APM Terminal on Pier 400. Finally, Figure 3.1-8, upper image, is the

1 view toward the proposed Project site from San Pedro Bluffs residential area, and the
2 lower image is from Lookout Point Park. These images represent the cumulative
3 effect of actions taken over the last century: the creation of a distinct character type
4 of a highly engineered, working port. In these views all features are inherent to the
5 character of a working port and are coherently arrayed, presenting a readily
6 apprehended composition of geometric forms, focal points, and the water surface.
7 Relative to views from Cabrillo Beach and its vicinity and Lookout Point Park, visual
8 quality is high, the existing conditions being rated a Visual Modification Class 1
9 (Sections 3.1.2.2.3.1 and 3.1.2.2.3.2). Relative to the San Pedro Bluffs residential area,
10 visual quality is low, the existing conditions being rated a Visual Modification Class 4.

11 Related projects shown in Figure 4-1 and Table 4-1 that are within the field of view
12 from Cabrillo Beach, San Pedro Bluffs residential area, and Lookout Point Park are
13 described in Section 4.2.1.2, **Impact AES-1**. They include:

- 14 • Project #1: Pier 400 Container Terminal and Transportation Corridor Project
15 (APM Container Terminal). As noted, the 1992 Deep Draft FEIS/FEIR
16 concluded that unavoidable significant visual impacts would result from
17 construction of the Pier 400 landfill project due to the permanent loss of open
18 water views and the stark, featureless landfill. The report further concluded
19 that the fill areas would be developed with terminal facilities compatibly
20 blending with existing Port activities but that viewing distances would
21 determine whether specific features of terminal operation would be an
22 impact.

23 The EIR certified for the Pier 400 Container Terminal and Transportation
24 Corridor Project (APM Container Terminal) project identified no significant
25 visual impacts.

26 Relative to views from Cabrillo Beach and its vicinity, and Lookout Point
27 Park, the valued aesthetic image within these views includes the features of
28 the working port to the north and northeast and the mountains in the distance.
29 The viewing distances are 1.3 miles and 1.9 miles respectively, and at these
30 distances Project #1 is viewed in the context of a wide panorama of Port
31 features. The APM Terminal is an extension of, and blends with, that
32 context, introducing no unfavorable contrast. This project has, therefore, not
33 caused an adverse impact relative to **Impact AES-3**.

34 For views from the San Pedro Bluffs residential area, the valued aesthetic
35 image is the character of that residential area and the distant views to the
36 southeast and south of the outer harbor, open ocean and Catalina Island.
37 These outer harbor-open ocean views are experienced in the context of views
38 to the northeast across the San Pedro Bay Ports, the port industrial features of
39 which dominate attention. Project #1, in extending the industrial
40 development southward, has introduced industrial features to an area that was
41 once open water near the outer harbor. However, in the context of the wide
42 panorama that discloses the LAHD environment, this development did not
43 introduce new and noticeably unfavorable contrast. Refer to Figure 3.1-8,
44 which shows a view representing those from San Pedro Bluffs residential
45 area and one from Lookout Point Park, which also represents the wider
46 panorama available to residents in the area. The extensive Port development

1 in view overwhelms the peripheral increment of development at Pier 400.
2 Therefore, Project #1 did not cause an adverse visual impact on views from
3 the San Pedro Bluffs residential area in terms of **Impact AES-3**.

- 4 • Project #5: Cabrillo Way Marina, Phase II. This project would present a low-
5 profile relative to the view from Cabrillo Beach and its vicinity and only the
6 southern edge of the development would be within view. In the panoramic
7 context of the working port available in views from this area, the
8 construction activity there would extend across a very small part of the field
9 of view. It would not pose a noticeably unfavorable contrast to the scene.
10 When completed, the redeveloped marina and related facilities, to the extent
11 they would be glimpsed, would be entirely in character and blend in with the
12 setting. Relative to **Impact AES-1**, there would be no adverse impact.

13 From Lookout Point Park, the working port is the context for the view and,
14 as would be the case for views from Cabrillo Beach, the construction of the
15 project would extend across a small portion of the field of view, the viewing
16 position being 1.9 miles away. There would be no noticeably unfavorable
17 contrast. Upon completion, the project would not be noticeable in its context
18 and there would be no adverse impact in terms of **Impact AES-3**.

19 From the San Pedro Bluffs residential area, the context for the view is the
20 adjacent residential character. As would be the case for the view from
21 Lookout Point Park, the project would extend across a small part of the
22 panoramic field of view. The features of the Project would contrast with the
23 residential setting to some degree, but they would be inconsequential within
24 the broad and distant context of the working port would be in the
25 background, and would therefore go unnoticed and not cause an adverse
26 impact.

- 27 • Project #6: Artificial Reef, San Pedro Breakwater. As noted earlier, this
28 project is not relevant to the assessment of cumulative visual impacts on the
29 views from Cabrillo Beach that include the proposed Project, inasmuch as
30 those views are to the north of the breakwater and Project #6 is to the south,
31 in the opposite direction. From Lookout Point Park, this project would be
32 within view, but the activity of barges there would not pose a noticeably
33 contrasting feature in a port where marine vessels of several types are
34 commonplace.

35 From the San Pedro Bluffs residential area, the activity of barges along the
36 south side of the breakwater would present a small and inconsequential
37 additional contrast to the port-influenced panorama which would go
38 unnoticed by the public.

39 To summarize, this project would introduce a small, additional, but
40 negligibly contrasting feature to the available panorama relative to the views
41 from the residential area along the San Pedro Bluffs, but would introduce no
42 unfavorable contrast to views from Lookout Point Park. Relative to views
43 from Cabrillo Beach, this project is not relevant. In terms of **Impact AES-3**,
44 there would be no adverse impact.

- 1 • Project #33: Proposed Marine Research Center. This project would include
2 various laboratories, a research and development park, and educational
3 support facilities at City Dock No. 1. It is assumed that the structures would
4 not be higher than one or two stories and that the multi-story Warehouse No.
5 1 may be removed to accommodate the research center.

6 Based on available information, this project would not present unfavorably
7 contrasting construction activities or features of operation within the
8 industrial context of a working port as viewed from Cabrillo Beach and its
9 vicinity and Lookout Point Park. Relative to the residential context for views
10 from the San Pedro Bluffs residential area, this project would occur within a
11 distant and broad context of industrial development and not present a
12 noticeable increment of unfavorable contrast to the neighborhood character.
13 Relative to **Impact AES-3**, there would be no adverse impact due to this
14 project.

- 15 • Project #13: Westway Decommissioning. This project is to occur along the
16 east side of City Dock No. 1 in 2009 and includes removal of 136 storage
17 tanks. These tanks are not within views from Cabrillo Beach and its vicinity
18 due to the sheds along the west side of City Dock No. 1 that intervene in
19 these views. Concerning views from Lookout Point Park and the San Pedro
20 Bluffs residential area, the storage tanks appear small in the larger context
21 and are a type of feature that is among those characteristic of a working port.
22 Their presence is not conspicuous, so their removal would not be noticed in
23 either of the contexts for these two areas (the Port context or the residential
24 context). There would be no effect on the subject views, so this project would
25 cause no adverse impact relative to **Impact AES-3**.

- 26 • Project #23: Berth 302-305 (APL) Container Terminal Improvements. The
27 conclusions applying to the Pier 400 Project (#1) pertain as well to Project
28 #23. This project has not caused an adverse impact on views from Cabrillo
29 Beach and Lookout Point Park in terms of **Impact AES-3**. For views from
30 San Pedro Bluffs residential area, however, Project #23 has caused an
31 adverse impact relative to **Impact AES-3**.

32 As has been noted, this project includes a terminal expansion area and new
33 berth on the east side of Pier 300. An undisclosed number of the gantry
34 cranes would be installed along the new berth. These cranes, being along the
35 east side of Pier 300, would not be noticeable from Cabrillo Beach and its
36 vicinity because of intervening structures, such as the much closer gantry
37 cranes along Berths 302-304 and/or the facilities at the Port of Los Angeles
38 Liquid Bulk Terminal (see Figures 3.1-4, 3.1-5, and 3.1-7). Given the
39 location of the improvements and the facilities which intercede in views from
40 Cabrillo Beach and its vicinity, Project #23 has no potential to adversely
41 affect the existing visual character or quality of a site and its surroundings
42 There would be no adverse impact under **Impact AES-3** relative to those
43 views.

44 Views from the San Pedro Bluffs residential area and from Lookout Point
45 Park are substantially elevated; gantry cranes along the east side of Pier 300
46 would therefore be at least partially within view from here (see Figure 3.1-8).

1 However, because they would be installed along a new berth on the east side
 2 of Pier 300, they would not be noticeable as nearly all Port facilities are west
 3 (in front of) of the proposed berth. Therefore, there would be no adverse
 4 impact under **Impact AES-3**.

- 5 • Project #32: Inner Cabrillo Beach Water Quality Improvement Program. The
 6 work under this project includes sewer and storm drain work, sand
 7 replacement, bird excluders and groin removal. Most, if not all, of the sewer
 8 and storm drain work has been completed. The first phase of sand
 9 replacement above the high tide line was completed in 2007. The remaining
 10 sand replacement work, that occurring below the high tide line, is expected to
 11 be completed in 2008. The groin removal work has not yet been done, but is
 12 also expected to occur in 2008. In summary, nearly all of the work
 13 contemplated for this project has already been done or will be completed in
 14 2008. There is no evidence of any effects on views from Cabrillo Beach and
 15 its vicinity apparent as of March, 2008 due to this project. Any which may
 16 occur in 2008 will be temporary. In conclusion, this project has not caused,
 17 and is not expected to cause, other than temporary adverse effects and,
 18 therefore, cannot contribute cumulatively to the effect of the other projects
 19 considered in this cumulative impact assessment.

20 From Lookout Point Park and the residential area along the San Pedro Bluffs,
 21 the activity along the beach in this location would not be visible due to
 22 screening by vegetation and buildings, and there would be no impact under
 23 **Impact AES-3**.

- 24 • Project #45: Cabrillo Marine Aquarium Expansion. This project has been
 25 completed. Since the Aquarium is located along the west edge of the parking
 26 lot at Cabrillo Beach and also is well below the nearest residences further to
 27 the west, it is not in views from Cabrillo Beach and its vicinity that are
 28 directed toward the propose Project. Moreover, the aquarium cannot be seen
 29 from Lookout Point Park or other areas along the San Pedro Bluffs.
 30 Therefore, this project has caused no adverse impact relative to **Impact**
 31 **AES-3**.

32 **Summary:** Relative to **Cumulative Impact AES-3** and views from Cabrillo Beach
 33 and vicinity, San Pedro Bluffs residential area, and Lookout Park, Projects #5, #6,
 34 #33, #13, and #23 planned for the future, are not expected to cause an adverse impact
 35 under **Impact AES-3**. Projects #1 and #45, which have been completed, have caused
 36 no adverse impact and will not contribute, along with the proposed Project, toward an
 37 adverse cumulative impact relative to this impact category.

38 Project #32 cannot contribute cumulatively to the effect of the other projects
 39 considered in this assessment, as the work has been mostly completed and has left no
 40 residual visual effects; the part of the work yet to be completed may cause temporary,
 41 adverse effects that will cease immediately upon project completion, leaving no
 42 residual visual effect.

43 Because past projects have had, or are expected to have, an adverse impact under
 44 **Impact AES-3** relative to the valued views, they will result in a cumulatively
 45 significant impact relative to **Cumulative Impact AES-3**

1 **Contribution of the Proposed Project**

2 The proposed Project’s effect on the views from Cabrillo Beach and its vicinity, San
3 Pedro Bluffs residential area, and Lookout Point Park relative to **Impact AES-3** is
4 discussed in detail in Section 3.1.4.3.1.5. They are summarized as follows.

5 **Cabrillo Beach Views.** The valued aesthetic image within view includes that of the
6 working port to the north and northeast as well as the residential development on the
7 bluffs to the west and the open ocean to the south. In light of the Port context, the
8 presence and activity of construction equipment associated with development of the
9 Marine Terminal and adjacent tank farm would not contrast with that context. The
10 scale of the equipment and the limited extent of the construction activities in this
11 view, compared with the total amount of Port facilities on Pier 400, would appear
12 entirely congruent with the setting.

13 The proposed Project’s permanent introduction of new buildings, large tanks on Face
14 D, liquid bulk loading/offloading equipment, an active wharf, and the transient
15 presence of large marine tankers would represent a visible change, as shown in
16 Figures 3.1-16 and 3.1-17. The new tank farm, together with marine tankers using
17 the new terminal, would appear to extend Port-related industrial and shipping
18 activities closer to the Angel’s Gate entrance. The change would not noticeably
19 contrast with existing visual conditions, though, particularly when associated with the
20 large gantry cranes at the APL and APM Terminals and the existing shipping traffic
21 to and from the North Channel and beyond. While new visual elements would be
22 added, there would be no additional and uncharacteristic contrast with the
23 surrounding developments on Pier 400; therefore, there would be no visual impact in
24 terms of **Impact AES-3**.

25 **San Pedro Bluffs Residential Area Views.** The character of the residential area
26 along the San Pedro Bluffs, together with that of the outer harbor, open ocean and
27 Catalina Island to the southeast and south, represents this area’s valued aesthetic
28 image. To the east toward the San Pedro Bay Ports, the existing visual condition is
29 rated as Visual Modification Class 4 in that immediate, residential context. The
30 presence and activity of construction equipment associated with development of the
31 Marine Terminal and adjacent tank farm would be incongruous with a residential
32 character. However, at the viewing distance involved, the scale and type of the
33 equipment and the limited extent of the construction activities, taken together, would
34 not be noticeable. Particularly when compared with the total amount of Port facilities
35 on Pier 400, construction equipment and activities would pose no observable contrast
36 with the setting.

37 The operational features of the proposed Project would be compatible with the
38 existing Port development at Piers 400 and 300, but would represent a visible change,
39 as shown in Figures 3.1-18 and 3.1-19. As has been noted, the view shown is from
40 Lookout Point Park but it is equivalent to that available from the San Pedro Bluffs
41 residential area (see Figure 3.1-8). The proposed Project would extend Port-related
42 industrial and shipping activities closer to the Angel’s Gate entrance. The change
43 would not noticeably contrast with existing visual conditions, though, particularly
44 when associated with the large gantry cranes at the APL and APM Terminals and the
45 existing shipping traffic to and from the North Channel and the Main Channel.

1 Moreover, from the elevated viewing positions in the San Pedro Bluffs area, more of
2 the Port environment to the northeast is visible than as shown in Figures 3.1-18 and
3 3.1-19 (see Figure 3.1-8, lower image, for a wider panoramic view from Lookout
4 Point Park, for instance). The proposed Project would be regarded in this larger
5 panorama and would not noticeably introduce additional unfavorable contrast to the
6 residential views affected.

7 While new visual elements would be added, there would be no additional
8 uncharacteristic contrast with the residential views affected, so there would be no
9 visual impact in terms of **Impact AES-3**.

10 **Lookout Point Park Views.** The Port's environment is the context for views from
11 Lookout Point Park, and the existing visual conditions are rated as Visual
12 Modification Class 1 in that context. The character of the distant and panoramic view
13 across the San Pedro Bay Ports, in conjunction with the view of the outer harbor and
14 open ocean to the south, is the valued aesthetic image relative to Lookout Point Park.
15 In light of this context, the presence and activity of construction equipment
16 associated with development of the Marine Terminal and adjacent tank farm would
17 be neither incongruous nor noticeable. Given the viewing distance involved, the type
18 and scale of the equipment and the limited extent of the construction activities in this
19 view would be congruent with the setting and inconspicuous. Especially when
20 compared with the total array of Port facilities on Pier 400, the Project's construction
21 phase would have no noticeable effect in the existing setting.

22 As would be the case for the San Pedro Bluffs residential area, the operation phase of
23 the proposed Project, while posing a visible change, would introduce features that
24 would be compatible with the existing Port development at Piers 400 and 300.
25 Though the proposed Project would extend Port-related industrial and shipping
26 activities closer to the Angel's Gate entrance to the Port, the change would not
27 noticeably contrast with the setting, though, especially considering the nearby large
28 gantry cranes at the APL and APM Terminals and the existing shipping traffic to and
29 from the North Channel and the Main Channel. Furthermore, the proposed Project's
30 features would be regarded within an expansive panorama (Figure 3.1-8, lower
31 image) and found to be entirely congruent in scale and type with the other Port
32 features in view.

33 While new visual elements would be added, there would be no uncharacteristic
34 contrast with Port features in view, so there would be no visual impact in terms of
35 **Impact AES-3**.

36 **Conclusion.** Past projects at the Port related projects have caused a significant
37 cumulative impact under **Cumulative Impact AES-3**. The proposed Project would
38 not noticeably introduce any additional unfavorable contrast and, consequently, would
39 cause no adverse impact under **Impact AES-3**. Therefore, the proposed Project
40 would not make a cumulatively considerable contribution to the significant
41 cumulative impact of related projects under **Cumulative Impact AES-3**.

42 As noted, Past projects at the Port have had a demonstrable negative effect on views
43 from the surrounding area and have resulted in a cumulatively significant impact
44 relative to **Cumulative Impact AES-3**.

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Mitigation Measures and Residual Cumulative Impacts

None is required, and the contribution of the proposed Project to cumulative impacts would not be considerable under CEQA and NEPA.

4.2.1.5 Cumulative Impact AES-4: Light and Glare – No Impact

Cumulative Impact AES-4 is specifically a CEQA-stated issue over the impact of new sources of substantial light or glare that would adversely affect day or nighttime views in the area of the proposed Project. NEPA does not refer to the issue of light and glare. As regards this impact issue, the *L.A. CEQA Thresholds Guide* directs that:

The determination shall be made on a case-by-case basis, considering the following factors:

- *The change in ambient illumination levels as a result of project sources; and*
- *The extent to which project lighting would spill off the project site and affect adjacent light sensitive areas.*

The assessment of light and glare, for this analysis, is directed to sources of night lighting only. Glare from reflected sunlight can occur during the daytime, depending on the reflectivity of materials of construction, the direction of sunlight, and the position of the observer. However, in the case of the proposed Project, daytime glare is not an issue because none of the materials of construction would be reflective.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Past projects at the Port of Los Angeles and in surrounding industrial districts have had the effect of creating sources of unshielded or poorly shielded and directed light that have had the effect of causing light spill and a change in ambient illumination levels in nearby areas. Because of the standards that the Port is now implementing to minimize the lighting impacts of new projects, the contributions of present and future projects to cumulative lighting impacts in the area will be limited. The net effect of the past projects has been to create a significant cumulative impact.

Contribution of the Proposed Project

Of concern is the proposed Project’s contribution to changes in ambient lighting and the spill of light off the proposed Project site onto adjacent light-sensitive areas. Section 3.1.4.3.1.6 addresses the issue of nighttime light and glare. Since there would be no nighttime construction, there would be no construction-related impacts due to light and glare. Regarding new lighting at the Marine Terminal and Tank Farm Site 1, by design such lighting would result in no light emissions relative to off-site positions. In terms of **Impact AES-4**, there would be no adverse impact.

Since the proposed Project categorically would have no impact relative to **Impact AES-4**, it is not necessary to analyze the effect of the proposed Project relative to of

1 past, present, and reasonably foreseeable future projects in terms of **Cumulative**
2 **Impact AES-4**.

3 **4.2.1.6 Cumulative Impact AES-5: Negative Shadow Effects –** 4 **No Impact**

5 **Cumulative Impact AES-5** is a CEQA but not a NEPA issue of concern. Under the
6 *L.A. CEQA Thresholds Guide* (City of Los Angeles 2006), if proposed Project
7 structures would be over 60 feet tall and within a distance of three times their height
8 to shadow-sensitive land uses on the north, northwest, or northeast, the potential for
9 an adverse effect on those land uses must be considered. The *L.A. CEQA Thresholds*
10 *Guide* lists hours, times of the year, as well as the duration of the effect, as criteria for
11 finding such an impact significant (Section 3.1.4.2.1). Specifically, an impact would
12 be considered significant if shadow-sensitive uses would be shaded by project-related
13 structures for more than three hours between the hours of 9:00 AM and 3:00 PM
14 between October and early April, or for more than four hours between 9:00 AM and
15 5:00 PM between early April and late October.

16 Under the proposed Project, the only structures that would be over 60 feet tall would
17 be the tanker ship and one light tower. The light tower would be pole mounted and
18 slender, having no potential to cast a substantial shadow. The highest part of the
19 ship's bridge would be about 180 feet above the water and nearly 400 feet from the
20 dock. No areas within 540 feet of the ship (three times 180 feet) and which are
21 northwest, north, or northeast of the terminal are shadow sensitive. To the northwest
22 is Reservation Point, 2,000 feet away, and the intervening waterway is the Glenn
23 Anderson Ship Channel. To the north and northeast is the Marine Terminal itself.
24 The APM Terminal is also to the north and northeast but is further than 540 feet
25 away and, regardless, is not a shadow-sensitive land use. Given the foregoing, no
26 shadow impacts would occur as a result of the proposed Project.

27 Since the proposed Project categorically would have no impact in terms of **Impact**
28 **AES-5**, it is not necessary to document the effects of past, present, and reasonably
29 foreseeable future projects in terms of **Cumulative Impact AES-5**.

30 **4.2.1.7 Cumulative Impact AES-6: Inconsistency with** 31 **Applicable Rules and Regulations – Less Than** 32 **Cumulatively Considerable**

33 **Cumulative Impact AES-6** is relevant to CEQA, as extended through the *L.A.*
34 *CEQA Thresholds Guide* (City of Los Angeles 2006), and to NEPA, as discussed in
35 Section 3.1.4.2.1 (CEQA Criteria) and Section 3.1.4.2.2 (NEPA Criteria). Under
36 **Cumulative Impact AES-6**, an impact would be significant if it were not consistent
37 with laws, ordinances, regulations or standards (LORS) supporting policies and
38 objectives applicable to the protection of features and views of aesthetic/scenic value.
39 Such regulations have been identified in Section 3.1.3.

1 **Impacts of Past, Present, and Reasonably Foreseeable Future**
2 **Projects**

3 As analyzed in this assessment, the impact of past projects under **Impact AES-1** and
4 **Impact AES-3** has been cumulatively significant, but their consideration under
5 **Impacts AES-2, AES-4 and AES-5** is not applicable, as previously discussed.

6 Policies and objectives pertaining to the protection of features and views of
7 aesthetic/scenic value, as cited in Section 3.1.3, that are relevant to **Impact AES-1**
8 and **Impact AES-3** are:

- 9 • Port of Los Angeles Plan Element Objective 4: this objective is “to assure
10 priority for water and coastal dependent development within the Port while
11 maintaining...public views of...coastal resources.”
- 12 • San Pedro Community Plan Policy 1-9.1: this policy calls for the
13 preservation of existing scenic views from residential areas, public streets
14 and facilities, or designated scenic view sites.
- 15 • San Pedro Community Plan Policy 6-2.1: this policy stipulates that views to
16 and along the ocean, harbor, and scenic coastal areas be protected; the
17 alteration of natural landforms be minimized; development be compatible
18 with the character of the surrounding area; and that existing views from
19 designated scenic view areas and Scenic Highways not be blocked.

20 **Port of Los Angeles Plan Element Objective 4.** If the term “coastal resources” was
21 meant to apply to protection against the loss from view of water surfaces within the
22 Port due to in-water development, by definition any in-water development within the
23 Port would effect such a loss. It is assumed, therefore, that this objective could not
24 have contemplated such an application of the term, as doing so would prevent any in-
25 water development. As regards in-water development, then, “coastal resources” is
26 treated as applying to aesthetics and visual resources along and shoreward of the
27 coast. With this interpretation, the cumulatively significant impacts of past projects
28 are not inconsistent with this Plan Objective.

29 **San Pedro Community Plan Policy 1-9.1.** This Plan was published in 1982, and the
30 impact of past projects from 1982 to June 2004 on scenic views from the residential
31 areas west of the Port are cumulatively significant.

32 **San Pedro Community Plan Policy 6-2.1.** Since the inception of this Plan Policy,
33 the impact of past projects on views to the harbor is cumulatively significant. Such
34 projects, though, have not affected scenic coastal areas (along the shore and
35 landward); have not affected landforms, being in-water development; and is
36 compatible with the established character of the Port environment. Regarding
37 designated scenic view areas, Lookout Point Park is so designated but the valued
38 view is the extensive Port environment to the east; past Port projects have created the
39 valued view and cannot be considered to have adversely affected it. Regarding Scenic
40 Highway views, none are affected by the proposed Project, so none are relevant to
41 the consideration of cumulative impacts.

1 The related projects therefore would not be inconsistent with LORS supporting
 2 policies and objectives applicable to the protection of features and views of
 3 aesthetic/scenic value and the public's visual access to them. Thus, past, present, and
 4 reasonably foreseeable future projects cause a less-than-significant cumulative
 5 impact under **Cumulative Impact AES-6**.

6 **Contribution of the Proposed Project**

7 The objective and objectives pertaining to the protection of features and views of
 8 aesthetic/scenic value cited above apply as well to the proposed Project. Relative to
 9 **Impacts AES-1 and AES-3**, as analyzed in this assessment, the proposed Project
 10 would cause no adverse visual impacts during construction or operation so would not
 11 be inconsistent with the noted objective and policies. In conclusion, the proposed
 12 Project would make a less than cumulatively considerable contribution to the less-
 13 than-significant cumulative impacts of related projects under **Cumulative Impact**
 14 **AES-6**.

15 **Mitigation Measures and Residual Cumulative Impacts**

16 None is required, and the contribution of the proposed Project to cumulative impacts
 17 would not be considerable under CEQA and NEPA.

18 **4.2.2 Air Quality and Meteorology**

19 **4.2.2.1 Scope of Analysis**

20 For **Cumulative Impacts AQ-1 through AQ-7**, the region of analysis for cumulative
 21 effects on air quality is the South Coast Air Basin (SCAB). However, the highest
 22 impacts under the proposed Project in the context of past, present, and reasonably
 23 foreseeable projects (Table 4-1) would occur within the communities adjacent to the
 24 proposed Project, including San Pedro, Rancho Palos Verdes, Wilmington, and Long
 25 Beach. For **Cumulative Impact AQ-8** (GHG emissions), the region of analysis is
 26 the state of California.

27 **4.2.2.2 Cumulative Impact AQ-1: Potential for Construction to** 28 **Produce a Cumulatively Considerable Increase of a** 29 **Criteria Pollutant for which the Project Region is in** 30 **Nonattainment Under a National or State Ambient Air** 31 **Quality Standard – Cumulatively Considerable and** 32 **Unavoidable**

33 **Cumulative Impact AQ-1** assesses the potential for proposed Project construction
 34 along with other cumulative projects to produce a cumulatively considerable increase
 35 in criteria pollutant emissions for which the project region is in nonattainment under
 36 a national or state ambient air quality standard.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Due to its substantial amount of emission sources and topographical/meteorological conditions that inhibit atmospheric dispersion, the SCAB is a “severe-17” nonattainment area for 8-hour O₃, a “serious” nonattainment area for both CO and PM₁₀, and a nonattainment area for PM_{2.5} in regard to the National Ambient Air Quality Standards (NAAQS). The SCAB is in attainment of the NAAQS for SO₂, NO₂, and lead. In regard to the California Ambient Air Quality Standards (CAAQS), the SCAB is presently in “extreme” nonattainment for O₃, “severe” nonattainment for CO, and nonattainment for PM₁₀. The SCAB is in attainment of the CAAQS for SO₂, NO₂, sulfates, and lead, and is unclassified for hydrogen sulfide and visibility reducing particles. These pollutant nonattainment conditions within the project region are therefore cumulatively significant. In the time period of proposed Project construction (i.e., between 2008 and 2010), a number of large construction projects will occur at the two Ports and surrounding areas (see Table 4-1) that will overlap and contribute to significant cumulative construction impacts.

The 2007 Air Quality Management Plan (AQMP) predicts attainment of all NAAQS within the SCAB, including PM_{2.5} by 2014 and O₃ by 2020.

The construction impacts of the related projects would be cumulatively significant if their combined construction emissions would exceed the SCAQMD daily emission thresholds for construction. Because this almost certainly would be the case for all analyzed criteria pollutants and precursors (VOCs, CO, NO_x, SO_x, PM₁₀, and PM_{2.5}), the related projects would likely result in a significant cumulative impact with respect to emissions of criteria pollutants.

Contribution of the Proposed Project (Prior to Mitigation)

The South Coast Air Quality Management District (SCAQMD) has developed daily emission thresholds that signify cumulatively considerable increases in pollutants from construction activities. Under both CEQA and NEPA, the proposed Project would exceed the daily construction emission thresholds for VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5} during Construction Phase I (as defined in Section 3.2, “Construction Phase I” is the period of construction prior to the start of terminal operations). These effects are summarized in Table 3.2-11. (Note that “Construction Phase II,” or the period of construction after the start of terminal operations, is analyzed in **Impact AQ-3**.)

As a result, construction emissions from the proposed Project without mitigation would produce cumulatively considerable contributions to VOC, CO, NO_x, SO_x, PM₁₀, and PM_{2.5} pollutant levels under CEQA and NEPA.

Mitigation Measures and Residual Cumulative Impacts

The emissions reductions from **MM AQ-1** through **MM AQ-12** would reduce construction emissions but, with the exception of SO_x (under both CEQA and NEPA) these reductions would not be sufficient to reduce the total construction emissions to below the significance criteria thresholds. Mitigated construction emissions under

1 CEQA and NEPA would exceed the VOC, CO, NO_x, PM₁₀, and PM_{2.5} SCAQMD
2 emission thresholds during Phase I construction. These effects are summarized in
3 Table 3.2-13. As a result, mitigated proposed Project construction emissions under
4 CEQA and NEPA would produce cumulatively considerable and unavoidable
5 contributions to VOC, CO, NO_x, PM₁₀, and PM_{2.5} pollutant levels.

6 **4.2.2.3 Cumulative Impact AQ-2: Potential for Construction to** 7 **Produce Emissions that Exceed an Ambient Air Quality** 8 **Standard or Substantially Contribute to an Existing or** 9 **Projected Air Quality Standard Violation – Cumulatively** 10 **Considerable and Unavoidable**

11 **Cumulative Impact AQ-2** assesses the potential for proposed Project construction
12 along with other cumulative projects to produce emissions that exceed an ambient air
13 quality standard or substantially contribute to an existing or projected air quality
14 standard violation.

15 **Impacts of Past, Present, and Reasonably Foreseeable Future** 16 **Projects**

17 The past, present, and reasonably foreseeable future projects for **Cumulative Impact**
18 **AQ-2** would result in significant cumulative impacts if their combined ambient
19 pollutant concentrations, during construction, would exceed the SCAQMD ambient
20 concentration thresholds for pollutants from construction. Although there is no way
21 to be certain if a cumulative exceedance of the thresholds would happen for any
22 pollutant without performing dispersion modeling of the other projects, cumulative
23 air quality impacts are likely to exceed the thresholds for NO_x, could exceed the
24 thresholds for PM₁₀ and PM_{2.5}, and are unlikely to exceed for CO. Consequently,
25 construction of the related projects would result in a significant cumulative air quality
26 impacts related to exceedances of the significance thresholds for NO₂, PM₁₀, and
27 PM_{2.5}.

28 **Contribution of the Proposed Project (Prior to Mitigation)**

29 The SCAQMD has developed ambient pollutant thresholds that signify cumulatively
30 considerable increases in criteria pollutants. Proposed Project construction emissions
31 would produce off-site impacts that would exceed the SCAQMD ambient thresholds
32 for 1-hour and annual NO₂ and 24-hour PM₁₀/PM_{2.5}, under both CEQA and NEPA.
33 These effects are summarized in Table 3.2-15. Any concurrent emissions-generating
34 activity that occurs in the vicinity of the Project site would add additional air
35 emission burdens to these significant levels. As a result, construction emissions from
36 the proposed Project without mitigation would produce cumulatively considerable
37 contributions to significant cumulative ambient NO₂, PM₁₀, and PM_{2.5} levels under
38 CEQA or NEPA.

1 **Mitigation Measures and Residual Cumulative Impacts**

2 With implementation of MMs AQ-1 through AQ-12, impacts from proposed Project
3 construction would still exceed the SCAQMD 1-hour and annual NO₂ and 24-hour
4 PM₁₀/PM_{2.5} thresholds under CEQA and NEPA. These effects are summarized in
5 Table 3.2-16. As a result, emissions from proposed Project construction would produce
6 cumulatively considerable and unavoidable contributions to ambient NO₂, PM₁₀, and
7 PM_{2.5} levels under CEQA and NEPA.

8 **4.2.2.4 Cumulative Impact AQ-3: Potential for Operation to**
9 **Produce a Cumulatively Considerable Increase of a**
10 **Criteria Pollutant for which the Project Region is in**
11 **Nonattainment Under a National or State Ambient Air**
12 **Quality Standard – Cumulatively Considerable and**
13 **Unavoidable**

14 **Cumulative Impact AQ-3** assesses the potential for proposed Project operation
15 along with other cumulative projects to produce a cumulatively considerable increase
16 in criteria pollutant emissions for which the project region is in nonattainment under
17 a national or state ambient air quality standard.

18 **Impacts of Past, Present, and Reasonably Foreseeable Future**
19 **Projects**

20 The other projects would be cumulatively significant if their combined operational
21 emissions would exceed the SCAQMD daily emission thresholds for operations.
22 Because this almost certainly would be the case for all analyzed criteria pollutants,
23 the related projects would result in a significant cumulative impact with respect to
24 criteria pollutants from operations.

25 **Contribution of the Proposed Project (Prior to Mitigation)**

26 The SCAQMD has developed daily emission thresholds that signify cumulatively
27 considerable increases in pollutants from operational activities. Peak daily emissions
28 from proposed Project operation would increase relative to CEQA baseline emissions
29 for VOCs, CO, NO_x, SO_x, PM, PM₁₀, and PM_{2.5} during one or more project analysis
30 years (Table 3.2-21). These emission increases would combine with operation
31 emissions from other projects near the proposed Project site, which would already be
32 cumulatively significant. As a result, without mitigation, emissions from the
33 proposed Project operation would make a cumulatively considerable contribution to a
34 cumulative significant impact for VOC, CO, NO_x, SO_x, PM, PM₁₀, and PM_{2.5}
35 emissions under CEQA.

36 Under NEPA, during a peak day of activity, proposed Project operations would
37 produce emissions that exceed SCAQMD daily thresholds for CO, SO_x, PM, PM₁₀,
38 and PM_{2.5} (Table 3.2-21). Any concurrent emissions-generating activity that occurs in
39 the vicinity of the Project site would add additional air emission burdens to these

1 significant levels. As a result, without mitigation, emissions from proposed Project
2 operations under NEPA would produce cumulatively considerable contributions to
3 CO, SO_x, PM, PM₁₀, and PM_{2.5} pollutant levels.

4 **Mitigation Measures and Residual Cumulative Impacts**

5 **MMs AQ-13 through AQ-21** would reduce operation phase emissions from the
6 proposed Project. However, during a peak day of activity, mitigated Project
7 operations would still produce emissions compared to the CEQA Baseline that
8 exceed SCAQMD daily thresholds for all criteria pollutants (i.e., VOC, CO, NO_x,
9 SO_x, PM, PM₁₀, and PM_{2.5}). Therefore, emissions from proposed Project operations
10 with mitigation would produce cumulatively considerable contributions to VOC, CO,
11 NO_x, SO_x, PM, PM₁₀, and PM_{2.5} pollutant levels under CEQA (Table 3.2-25).

12 During a peak day of activity under NEPA, mitigated Project operations would
13 produce emissions that exceed SCAQMD daily thresholds for CO (Table 3.2-25).
14 Any concurrent emissions-generating activity that occurs in the vicinity of the Project
15 site would add additional air emission burdens to these significant levels. As a result,
16 emissions from Project operations would produce cumulatively considerable and
17 unavoidable contributions to CO pollutant levels under NEPA.

18 **4.2.2.5 Cumulative Impact AQ-4: Potential for Operation to** 19 **Produce Emissions that Exceed an Ambient Air Quality** 20 **Standard or Substantially Contribute to an Existing or** 21 **Projected Air Quality Standard Violation – Cumulatively** 22 **Considerable and Unavoidable**

23 **Cumulative Impact AQ-4** assesses the potential for proposed Project operation
24 along with other cumulative projects to produce emissions that exceed an ambient air
25 quality standard or substantially contribute to an existing or projected air quality
26 standard violation.

27 **Impacts of Past, Present, and Reasonably Foreseeable Future** 28 **Projects**

29 The related projects would result in significant cumulative impacts if their combined
30 ambient concentration levels during operations would exceed the SCAQMD ambient
31 concentration thresholds for operations. Although there is no way to be certain if a
32 cumulative exceedance of the thresholds would happen for any pollutant without
33 performing dispersion modeling of the other projects, cumulative air quality impacts
34 are likely to exceed the thresholds for NO₂, could exceed the thresholds for PM₁₀ and
35 PM_{2.5}, and are unlikely to exceed for CO. Consequently, operation of the related
36 projects would result in a significant cumulative air quality impacts related to
37 exceedances of the significance thresholds for NO₂, PM₁₀, and PM_{2.5}.

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Contribution of the Proposed Project (Prior to Mitigation)

The SCAQMD develops ambient pollutant thresholds that signify cumulatively considerable increases in these pollutants. Project operational emissions would produce off-site impacts that would exceed the SCAQMD ambient thresholds for 1-hour and annual NO₂ under both CEQA and NEPA. These effects are summarized in Table 3.2-26. Any concurrent emissions-generating activity that occurs in the vicinity of the Project site would add additional air emission burdens to these significant levels. As a result, without mitigation, emissions from Project operations would produce cumulatively considerable contributions to ambient NO₂ levels under CEQA and NEPA.

Mitigation Measures and Residual Cumulative Impacts

With **Mitigation Measure (MM) AQ-13** through **MM AQ-21**, impacts from Project operation would still exceed the SCAQMD annual NO₂ ambient thresholds. These effects are summarized in Table 3.2-27. As a result, emissions from Project operation would produce cumulatively considerable and unavoidable contributions to ambient NO₂ levels under CEQA and NEPA.

4.2.2.6 Cumulative Impact AQ-5: Potential for Operation to Create Objectionable Odors at the Nearest Sensitive Receptor – Cumulatively Considerable and Unavoidable

Cumulative Impact AQ-5 assesses the potential of the proposed Project operation along with other cumulative projects to create objectionable odors at the nearest sensitive receptor.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

There are temporary and semi-permanent sources of odors within the Port region, including mobile sources powered by diesel and residual fuels and stationary industrial sources, such as petroleum storage tanks. Some individuals may sense that diesel combustion emissions are objectionable in nature, although quantifying the odorous impacts of these emissions to the public is difficult. Due to the large number of sources within the Port that emit diesel emissions and the proximity of residents (sensitive receptors) adjacent to Port operations, odorous emissions in the Project region are cumulatively significant.

Contribution of the Proposed Project

Operation of the proposed Project would increase air pollutants due to the combustion of diesel fuel. Some individuals may sense that emissions from the combustion of diesel fuel have an objectionable odor, although it is difficult to quantify the odorous impacts of these emissions to the public. While the mobile nature of the Project vessel emission sources would help to disperse the emissions

1 and the distance between Project emission sources and the nearest residents in San
2 Pedro and Wilmington should be far enough to allow for adequate dispersion of these
3 emissions to less than significant odor levels from a project-specific level, these
4 odors would combine with odors from other past, present, and future projects. As a
5 result, when combined with other projects, the proposed Project would have the
6 potential to produce objectionable odors and for such odors to affect a substantial
7 number of people. Operation of the Project would increase diesel emissions within
8 the Port. Any concurrent emissions-generating activity that occurs in the vicinity of
9 the Project site would add additional air emission burdens to cumulative impacts. As
10 a result, Project operations would result in cumulatively considerable contributions to
11 odor impacts within the Project region under CEQA and NEPA.

12 **4.2.2.7 Cumulative Impact AQ-6: Exposure of receptors to** 13 **significant levels of toxic air contaminants (TACs) –** 14 **Cumulatively Considerable and Unavoidable**

15 **Cumulative Impact AQ-6** assesses the potential of the proposed Project
16 construction and operation along with other cumulative projects to produce TACs
17 that exceed acceptable public health criteria.

18 **Impacts of Past, Present, and Reasonably Foreseeable Future** 19 **Projects**

20 The *Multiple Air Toxics Exposure Study II* (MATES-II) conducted by the SCAQMD
21 in 2000 estimated the existing cancer risk from toxic air contaminants in the SCAB to
22 be 1,400 in a million (SCAQMD 2000). In MATES III, completed in 2008,
23 SCAQMD estimated the existing cancer risk from toxic air contaminants in the San
24 Pedro and Wilmington area to be in the range of 1,000 to 2,000 in a million
25 (SCAQMD 2008). In the *Diesel Particulate Matter Exposure Assessment Study for*
26 *the Ports of Los Angeles and Long Beach*, the CARB estimates that elevated levels of
27 cancer risks due to operational emissions from the Ports of Los Angeles and Long
28 Beach occur within and in proximity to the two Ports (CARB 2006). Based on this
29 information, existing airborne cancer and non-cancer levels within the project region
30 are therefore cumulatively significant.

31 The Port has approved port-wide air pollution control measures through their San
32 Pedro Bay Ports Clean Air Action Plan (CAAP) (LAHD and Port of Long Beach
33 2006). Implementation of these measures will reduce the health risk impacts from
34 the Project and future projects at the Port. Currently adopted regulations and future
35 rules proposed by the CARB and USEPA also will further reduce air emissions and
36 associated cumulative health impacts from Port operations. However, because future
37 proposed measures (other than CAAP measures) and rules have not been adopted,
38 they have not been accounted for in the emission calculations or health risk
39 assessment for the Project. Therefore, it is unknown at this time how these future
40 measures would reduce cumulative health risk impacts within the Port project area.

1 **Contribution of the Proposed Project (Prior to Mitigation)**

2 Any concurrent emissions-generating activity that occurs in the vicinity of the Project
3 site would add additional airborne health burdens to already cumulatively significant
4 impacts for cancer risk, acute non-cancer risk, and chronic non-cancer risk. Thus,
5 prior to mitigation, proposed Project construction and operational emissions of TACs
6 would result in a cumulatively considerable contribution to cancer risks at off-site
7 residential, occupational, sensitive, and student receptors, under both CEQA
8 (Table 3.2-28) and NEPA (Table 3.2-30).

9 In terms of non-cancer effects, prior to mitigation, proposed Project construction and
10 operational emissions of TACs would result in a cumulatively considerable
11 contribution to chronic and acute non-cancer effects to off-site residential,
12 occupational, sensitive, and student receptors, under CEQA (Table 3.2-28). Prior to
13 mitigation, proposed Project construction and operational emissions of TACs would
14 result in a cumulatively considerable contribution to chronic non-cancer effects to
15 off-site residential, occupational, sensitive, and student receptors under NEPA
16 (Table 3.2-30). However, proposed Project emissions of TACs would not result in a
17 cumulatively considerable contribution to acute non-cancer effects under NEPA
18 (Table 3.2-30) because the acute non-cancer effects are negative, thereby reducing
19 cumulative impacts.

20 **Mitigation Measures and Residual Cumulative Impacts**

21 With mitigation, proposed Project construction and operational emissions of TACs
22 would result in a cumulatively considerable contribution to cancer risks at off-site
23 residential, occupational, sensitive, and student receptors under CEQA (Table 3.2-29).
24 Under NEPA, proposed Project emissions of TACs would result in a cumulatively
25 considerable contribution to cancer risks only at occupational receptors (Table 3.2-31).

26 In terms of non-cancer effects, proposed Project TAC emissions with mitigation
27 would result in a cumulatively considerable contribution to chronic and acute non-
28 cancer effects to off-site residential, occupational, sensitive, and student receptors,
29 under CEQA (Table 3.2-29). With mitigation, proposed Project construction and
30 operational emissions of TACs would result in a cumulatively considerable
31 contribution to chronic non-cancer effects to off-site occupational, sensitive, and
32 student receptors under NEPA (Table 3.2-31). However, proposed Project emissions
33 of TACs would not result in a cumulatively considerable contribution to acute non-
34 cancer effects, nor chronic non-cancer effects at residential receptors, under NEPA
35 because the effects of the proposed Project are negative (Table 3.2-31), thereby
36 reducing cumulative impacts.

37 Levels of TAC emissions from both Port facilities and Port-related trucks traveling
38 along adjacent streets will diminish in future years with the implementation of the
39 recently approved CAAP and current and future rules adopted by the CARB and
40 USEPA. Specifically, diesel particulate matter (DPM) emissions from trucks are
41 anticipated to diminish by approximately 80 percent over the next 5 years with the
42 implementation of the CAAP. It is unknown at this time whether these future
43 emission reductions would reduce the cumulative health impacts in the Port region to
44 less than significant levels. However, the Port is in the process of developing a

1 Portwide health risk analysis (HRA) that will define the cumulative health impacts of
2 Port emissions in proximity to the Port. Therefore, Project operations would result in
3 cumulatively considerable contributions to TACs within the Project region under
4 CEQA and NEPA

5 **4.2.2.8 Cumulative Impact AQ-7: Potential conflict with or** 6 **obstruction of implementation of an applicable AQMP –** 7 **Less than Cumulatively Considerable**

8 **Cumulative Impact AQ-7** represents the potential of the proposed Project along
9 with other cumulative projects to conflict with or obstruct implementation of an
10 applicable AQMP.

11 **Impacts of Past, Present, and Reasonably Foreseeable Future** 12 **Projects**

13 The related projects would result in a significant cumulative air quality impact if they
14 result in population growth or operational emissions that exceed the assumptions in
15 the AQMP. The related projects would be subject to regional planning efforts and
16 applicable land use plans (such as the General Plan, Community Plans, or Port
17 Master Plan) or transportation plans such as the Regional Transportation Plan and the
18 Regional Transportation Improvement Program. Because the AQMP accounts for
19 population projections that are developed by the Southern California Association of
20 Governments, and accounts for planned land use and transportation infrastructure
21 growth, the related projects would be consistent with the AQMP. Because of this, the
22 related projects would not result in significant cumulative impacts related to an
23 obstruction of the AQMP.

24 **Contribution of the Proposed Project (Prior to Mitigation)**

25 The Proposed Project would produce emissions of nonattainment pollutants. The 2003
26 and 2007 AQMPs propose mobile source control measures and clean fuel programs that
27 are designed to bring the SCAB into attainment of the state and national ambient air
28 quality standards. Many of these AQMP control measures are adopted as SCAQMD
29 rules and regulations, which are then used to regulate sources of air pollution in the
30 region. Proposed sources would have to comply with all applicable SCAQMD rules and
31 regulations and in this manner, the Project would not conflict with or obstruct
32 implementation of the AQMP.

33 The Port regularly provides the Southern California Association of Governments with its
34 Portwide cargo forecasts for development of the AQMPs. Therefore, the attainment
35 demonstrations included in the 2003 and 2007 AQMPs account for the emissions
36 generated by projected future growth at the Port. Because the proposed Project is
37 planned as part of the long-term development of Pier 400, the AQMP accounts for the
38 development of the proposed Project. As a result, without mitigation, the Project would
39 result in a less than significant impact and will not cause a cumulatively considerable
40 contributions in terms of conflicting with or obstructing implementation of an applicable
41 AQMP under CEQA and NEPA.

1 **Mitigation Measures and Residual Cumulative Impacts**

2 None are required, as cumulative impacts would be less than significant.

3 **4.2.2.9 Cumulative Impact AQ-8: Potential Contribution to**
4 **Global Climate Change – Cumulatively Considerable**
5 **and Unavoidable**

6 **Cumulative Impact AQ-8** represents the potential of the proposed Project along
7 with other cumulative projects to contribute to global climate change.

8 **Impacts of Past, Present, and Reasonably Foreseeable Future**
9 **Projects**

10 Scientific evidence indicates a trend of warming global surface temperatures over the
11 past century due at least partly to the generation of greenhouse gases (GHG)
12 emissions from human activities, as further discussed in Chapter 3.2 (Air Quality and
13 Meteorology). Some observed changes include shrinking glaciers, thawing
14 permafrost, and shifts in plant and animal ranges. Credible predictions of long-term
15 impacts from increasing GHG levels in the atmosphere include sea level rise, changes
16 to weather patterns, changes to local and regional ecosystems including the potential
17 loss of species, and significant reductions in winter snow packs. These and other
18 effects would have environmental, economic, and social consequences on a global
19 scale. Emissions of GHGs contributing to global climate change are attributable in
20 large part to human activities associated with the industrial/manufacturing, utility,
21 transportation, residential, and agricultural sectors (CARB 2007). Therefore, the
22 cumulative global emissions of GHGs contributing to global climate change can be
23 attributed to every nation, region, and city, and virtually every individual on Earth.
24 In California alone, CO₂ emissions totaled approximately 484.40 million metric tons
25 in year 2004 (CARB 2007), which was an estimated 1.8 percent of global fossil fuel
26 related CO₂ emissions (EIA 2007). Based upon this information, past, current, and
27 future global GHG emissions, including emissions from projects in the Ports of Los
28 Angeles and Long Beach (Table 4-1) and elsewhere in California, are therefore
29 cumulatively significant.

30 **Contribution of the Proposed Project (Prior to Mitigation)**

31 The challenge in assessing the significance of an individual project's contribution to
32 global GHG emissions and associated global climate change impacts is to determine
33 whether a project's GHG emissions—which are at a micro-scale relative to global
34 emissions—result in a cumulatively considerable incremental contribution to a
35 significant cumulative macro-scale impact. As noted above, CO₂ emissions in
36 California totaled approximately 484.40 million metric tons in year 2004 (CARB
37 2007). As shown in Table 3.2-33, the proposed Project would produce higher GHG
38 emissions in each future project year, compared to CEQA and NEPA Baseline levels.
39 Any concurrent emissions-generating activity would add additional air emission
40 burdens to these significant levels, which could further exacerbate environmental
41 effects as discussed above and in Chapter 3.2. Considering **Impact AQ-8**, which states

1 that any GHG increase over the CEQA Baseline is significant, without mitigation,
2 emissions from proposed Project construction and operation would produce a
3 cumulatively considerable contribution to global climate change under CEQA.

4 Mitigation Measures and Residual Cumulative Impacts

5 As shown in Tables 3.2-34 and 3.2-37, with mitigation, the proposed Project would
6 produce higher GHG emissions in each future project year, compared to CEQA and
7 NEPA baseline levels. The way in which CO₂ emissions associated with the proposed
8 Project might or might not influence actual physical effects of global climate change
9 cannot be determined. Nevertheless, as discussed in Chapter 3.2, existing GHG
10 levels are projected to result in changes to the world's climate, with significant
11 warming seen in some areas, which, in turn, will have numerous indirect effects on
12 the environment and humans.

13 Project GHG emissions would contribute to existing levels, and therefore, would
14 contribute to the causes of global climate change. Considering **Impact AQ-8**, which
15 states that any increase in GHG emissions over the CEQA Baseline is significant,
16 emissions from construction and operation of the proposed Project would produce a
17 cumulatively considerable and unavoidable contribution to global climate change
18 under CEQA.

19 4.2.3 Biological Resources

20 4.2.3.1 Scope of Analysis

21 The geographic region of analysis for biological resources differs by organism groups
22 such as birds, fish, marine mammals, plankton, and benthic invertebrates. The
23 mobility of species in these groups, their population distributions, and the normal
24 movement range for individuals living in an area varies so that effects on biotic
25 communities in one area can affect those communities in other nearby areas. For
26 terrestrial biological resources (excluding water-associated birds), the geographic
27 region of analysis is limited to those land areas at the proposed Project sites (i.e., tank
28 farms and pipelines) and extending approximately 1 mile (1.6 km) in all directions.
29 The resources present are common species that are abundant throughout the region and
30 are adapted to industrial areas in the Harbor. For marine biological resources,
31 excluding marine mammals, the geographical region of analysis for benthic
32 communities, water column communities (plankton and fish), and water-associated
33 birds is the water areas of the Los Angeles/Long Beach Harbor (inner and outer harbor
34 areas) because the basins, slips, channels, and open waters are hydrologically and
35 ecologically connected. Effects on plankton are more restricted, however, but no
36 distinct boundary can be established so the entire Harbor area is used. For marine
37 mammals, the analysis area includes the Los Angeles-Long Beach Harbor as well as
38 the Pacific Ocean from near Angels Gate out to Catalina Island in order to cover vessel
39 traffic effects. The special status bird species have differing population sizes and
40 dynamics, distributional ranges, breeding locations, and life history characteristics.
41 Because the bird species are not year-long residents but migrate to other areas where
42 stresses unrelated to the proposed Project and other projects in the Harbor area can

1 occur, the area for cumulative analysis is limited to the Harbor (water and adjacent port
2 lands). Sea turtles are not expected to occur in the Harbor and their presence in the
3 nearshore areas where vessel traffic could affect them is unlikely and unpredictable;
4 consequently, these animals are not considered in the cumulative analysis.

5 Past, present, and reasonably foreseeable future development that could contribute to
6 cumulative impacts on terrestrial resources are those projects that involve land
7 disturbance such as grading, paving, landscaping, construction of roads and buildings,
8 and related noise and traffic impacts. Noise, traffic, and other operational impacts can
9 also be expected to have cumulative impacts on terrestrial species. Marine organisms
10 could be affected by activities in the water such as dredging, filling, wharf demolition
11 and construction, and vessel traffic. Runoff of pollutants from construction and
12 operations activities on land into Harbor waters via storm drains or sheet runoff also
13 has the potential to affect marine biota, at least in the vicinity of the drains.

14 The significance criteria used for the cumulative analysis are the same as those used
15 for the proposed Project in Section 3.3.4.2. These criteria are the same for both the
16 CEQA and NEPA analyses.

17 **4.2.3.2 Cumulative Impact BIO-1: Cumulative Impacts to** 18 **Special Status Species – Cumulatively Considerable and** 19 **Unavoidable**

20 **Cumulative Impact BIO-1** represents the potential of the proposed Project along
21 with other cumulative projects to adversely affect state- and federally-listed
22 endangered, threatened, or Species of Special Concern, or to result in the loss of
23 critical habitat. No critical habitat for any federally-listed species is present in the
24 Harbor, and thus, no cumulative impacts to critical habitat would occur.

25 **Impacts of Past, Present, and Reasonably Foreseeable Future** 26 **Projects**

27 Construction of past landfill projects in the Harbor has reduced the amount of marine
28 surface water present and thus foraging and resting areas for special status bird
29 species, but these projects have also added more land and structures that can be used
30 for perching near the water. Construction of Terminal Island, Pier 300, and then Pier
31 400 provided new nesting sites for the California least tern, and the Pier 400 site is
32 still being used. Shallow water areas to provide foraging habitat for the California
33 least tern and other bird species have been constructed on the east side of Pier 300
34 and inside the San Pedro breakwater (Cabrillo Shallow Water Habitat) as mitigation
35 for loss of such habitat from past projects, and more shallow water habitat is to be
36 constructed as part of the Channel Deepening Project. Cumulative impacts of marine
37 habitat loss on special status species would be less than significant.

38 The past projects that have increased vessel traffic have also increased underwater sound
39 in the Harbor and in the ocean from the vessel traffic lanes to Angels Gate and Queens
40 Gate. Ongoing and future terminal upgrade and expansion projects (e.g., Berths 136-147
41 Marine Terminal [#2], San Pedro Waterfront [#3], Channel Deepening [#4], Berths 226-
42 236 Improvements [#7], Ultramar [#12], Berths 97-109 [#15], Berths 302-305 APL

1 Improvements [#23], Berths 212-214 YTI [#28], Berths 121-131 [#29], Middle Harbor
2 [#69], Piers G & J [#70], Pier T TTI [#73], Pier S [#74], and if eventually approved,
3 Sound Energy Solutions [#76]) would increase vessel traffic and its associated
4 underwater sound. The frequency of vessel sound events would increase and contribute a
5 small increment to the average underwater sound level within the Harbor that would not
6 be expected to affect the hearing or behavior of marine mammals. While the number of
7 vessels would increase in the Port over the life of the Project, the number of vessels
8 transiting the main channel at any given time would not increase. Individual marine
9 mammals would likely respond to noise from vessels that pass near them by moving
10 away. Cumulative impacts of underwater sound from vessels on marine mammals would
11 be less than significant.

12 Past, present, and future projects will increase offshore vessel traffic. Ship strikes
13 involving marine mammals and sea turtles, although uncommon, have been
14 documented for the following listed species in the eastern North Pacific: blue whale,
15 fin whale, humpback whale, sperm whale, southern sea otter, loggerhead sea turtle,
16 green sea turtle, olive ridley sea turtle, and leatherback sea turtle (NOAA Fisheries
17 and USFWS 1998a, 1998b, 1998c, 1998d; Stinson 1984; Carretta et al. 2001). Ship
18 strikes have also been documented involving gray, minke, and killer whales. The
19 blue whale, fin whale, humpback whale, sperm whale, gray whale, and killer whale
20 are all listed as endangered under the ESA, although the Eastern Pacific grey whale
21 population was delisted in 1994. In southern California, potential strikes to blue
22 whales are of the most concern due to the migration patterns of blue whales relative
23 to the established shipping channels. Blue whales normally pass through the Santa
24 Barbara Channel en route from breeding grounds in Mexico to feeding grounds
25 further north. Blue whales were a target of commercial whaling activities worldwide.
26 In the North Pacific, the pre-whaling population was estimated at approximately
27 4,900 blue whales, and the current population estimate is approximately 3,300 blue
28 whales with 1,700 in the eastern North Pacific (NMFS 2008). Along the California
29 coast, blue whale abundance has increased over the past two decades (Calambokidis
30 et al. 1990, Barlow 1995, Calambokidis 1995). However, the increase is too large to
31 be accounted for by population growth alone and is more likely attributed to a shift in
32 distribution. Incidental ship strikes and fisheries interactions are listed by NMFS as
33 the primary threats to the California population. The number of strikes per year
34 ranged from none to seven and averaged 2.6, but the actual number is likely to be
35 greater because not all strikes are reported. As the number of vessels increases, the
36 number of incidents are also expected to increase. Cumulative impacts of vessel
37 strikes with blue whales could be significant and unavoidable due to their low
38 population size relative to historic levels and the potential for strikes as vessels cross
39 their migration path to enter the Harbor.

40 Construction of the Cabrillo Shallow Water Habitat Expansion and Eelgrass Habitat
41 Area as part of the Channel Deepening Project (#4) and the Berths 302-305 APL
42 Improvements (#23) have the potential to adversely affect California least tern
43 foraging during construction activities by causing a decline in forage fish availability
44 or ability of least terns to find forage fish during the nesting season. Impacts to the
45 California least tern could be significant but would be feasibly mitigated through
46 timing of construction activities in or near areas used for foraging to avoid work
47 when the least terns are present, or through control of turbidity. Construction of the
48 Cabrillo Shallow Water Habitat would create more shallow water suitable for

1 California least tern foraging, a long-term benefit. Cumulative impacts to the
2 California least tern from these activities would be less than significant.

3 Nearly all of the projects listed in Table 4-1 involve construction activities on land.
4 With respect to special status species, it is not expected that any nesting, foraging
5 habitat, or individuals would be lost as a result of developments on land. In addition,
6 due to the distance from the related projects to the least tern nesting area, noise from
7 none of the related projects would affect the least tern nesting area. Cumulative
8 impacts would be less than significant.

9 In-water construction activities (e.g., Berths 136-147 Marine Terminal [#2], San Pedro
10 Waterfront [#3], Channel Deepening [#4], Cabrillo Way Marina [#5], Berths 226-236
11 Improvements [#7], Berths 97-109 [#15], Berths 302-305 APL Improvements [#23],
12 Berths 212-214 YTI [#28], Berths 121-131 [#29], Middle Harbor [#69], Piers G & J
13 Redevelopment [#70], Pier T TTI [#73], Pier S [#74], Sound Energy Solutions [#76]
14 (if eventually approved), West Basin Installation Restoration Site 7 Dredging Project
15 (#80), and Schuyler F. Heim Bridge (#81) could disturb or cause special status birds,
16 other than the California least tern addressed above, to avoid the construction areas
17 for the duration of the activities. Because these projects would occur at different
18 locations throughout the Harbor and only some are likely to overlap in time, the birds
19 could use other undisturbed areas in the Harbor, and few individuals would be
20 affected at any one time. Construction of the Schuyler F. Heim Bridge (#81),
21 however, would have the potential to adversely affect the peregrine falcon if any are
22 nesting at the time of construction. If nesting were to be affected, impacts could be
23 significant but feasibly mitigated by scheduling the work to begin after the nesting
24 season is complete. Because no other related project would affect the peregrine
25 falcon, significant cumulative impacts to the peregrine falcon would not occur.
26 Cumulative impacts to other special status species would be less than significant.

27 In-water construction activities, and particularly pile driving, would result in
28 underwater sound pressure waves that could affect marine mammals. The locations of
29 these activities (e.g., pile and sheetpile driving) are in areas where few marine
30 mammals occur, projects in close proximity are not expected to occur concurrently, and
31 the marine mammals would avoid the disturbance area by moving to other areas within
32 the Harbor. Cumulative impacts of underwater sound from pile driving on marine
33 mammals would be less than significant.

34 Oil spills from tankers in transit through the Harbor or during offloading at liquid bulk
35 terminals that enter Harbor waters could adversely affect special status birds that forage
36 or rest on the water surface, such as the California least tern, California brown pelican,
37 and black skimmer. The potential for impacts to these species would depend primarily
38 on the location and size of the spill. Small spills would likely be contained and rapidly
39 cleaned up with little or no impact to these birds. However, a small spill into the
40 Cabrillo Shallow Water Habitat during the least tern nesting season could have
41 significant impacts to the population. A moderate to large spill could also have
42 significant impacts to the least tern if it occurred during their nesting season and
43 reached any of their primary foraging areas. Such a spill would also have the potential
44 to have significant impacts to the California brown pelican all year. Cumulative
45 impacts to the least tern and brown pelican would be unlikely but significant and
46 unavoidable if they occurred. Cumulative impacts of oil spills to other special status
47 species, including seals and sea lions in the Harbor, would be less than significant

1 because the number of individuals affected would be small relative to their regional
2 population size.

3 **Contribution of the Proposed Project (Prior to Mitigation)**

4 As discussed in Section 3.3.4.3.1 (**Impact BIO-1.1**), construction activities for the
5 proposed Project would have significant impacts, prior to mitigation, on the
6 California least tern at their nesting site on Pier 400 (SEA), burrowing owl (if
7 nesting), and black skimmer (if nesting) and less than significant impacts on other
8 special status species under CEQA and NEPA. Construction activities at Tank Farm
9 Site 1 could result in a loss of individuals or nesting habitat for the burrowing owl
10 and black skimmer, and these effects would result in a cumulatively significant
11 impact. Operation of proposed Project facilities (**Impact BIO-1.2**), excluding oil
12 spills that are discussed below, would have less than significant impacts to special
13 status species, with the exception of the least tern. Construction and operation of
14 Tank Farm Site 1 could have significant impacts, prior to mitigation, on the
15 California least tern at their nesting site (SEA). At least a portion of the disturbance
16 to the nesting area would be associated with noise from construction of the proposed
17 Project, but impacts would be less than significant; however, no noise impacts from
18 other related projects were identified that would contribute to any cumulative noise
19 impact on the least tern at the nesting area and, therefore, the proposed Project would
20 have a less than cumulatively considerable contribution to noise that would affect the
21 least terns at their SEA. With the other impacts noted above, however, the proposed
22 Project would have a cumulatively considerable contribution (prior to mitigation) to a
23 cumulatively significant impact for the California least tern at their SEA, under
24 CEQA and NEPA

25 While the proposed Project would not result in significant impacts to marine
26 mammals through vessel strikes, the increase in vessel traffic compared to the CEQA
27 Baseline would increase the potential for a project-related whale strike, including to
28 blue whales. Therefore, the proposed Project would have the potential to result in a
29 cumulatively considerable contribution to the significant cumulative impact to the
30 blue whale under CEQA, since overall increases in vessel traffic along the southern
31 California coast has contributed to marine mammal mortalities. Therefore, with the
32 contribution of the proposed Project to **Impact BIO-1** in regards to marine mammals,
33 the potential contribution to whale mortality from vessel strikes would be
34 cumulatively considerable under CEQA. Under NEPA, however, Project-related
35 vessel traffic would be 66 fewer vessels per year relative to the NEPA Baseline, and
36 therefore, under NEPA, the proposed Project would not result in a considerable
37 contribution to cumulative impacts of vessel strikes to marine mammals.

38 In addition, a small (e.g., up to 238 barrel [bbl]) or larger oil spill within the Harbor,
39 even though associated with a low probability of occurrence, could result in
40 significant and unavoidable impacts to the California least tern and the California
41 brown pelican. Therefore, impacts of the proposed Project would make a
42 cumulatively considerable contribution to the significant and unavoidable cumulative
43 impacts of oil spills for the least tern and brown pelican.

44 Effects of oil spills on other special status species would be less than significant and
45 would not result in a considerable contribution to cumulative impacts.

Mitigation Measures

Implementation of Project mitigation measures (MM BIO-1.1a through MM BIO-1.1j for construction impacts and MM BIO-1.2a through MM BIO-1.2e for operations impacts) would reduce most Project impacts (including all construction phase impacts) on special status species to less than significant. However, MM BIO-1.2c would not eliminate the potential for impacts of oil spills on the least tern and brown pelican. There are no additional feasible mitigation measures that would reduce the potential for accidental oil spills to significantly affect the least terns when they are present and foraging in the area (e.g., during April through August) or to affect the brown pelicans all year. MM BIO-1.2f would reduce but not eliminate the potential for project-related vessel strikes of blue whales. No additional feasible mitigation measures are available to eliminate such vessel strikes.

Residual Cumulative Impacts

Residual cumulative impacts on the least tern and brown pelican, related to the potential for oil spills, would be cumulatively considerable and unavoidable under CEQA and NEPA. Residual cumulative impacts of vessel strikes to blue whales would be cumulatively considerable and unavoidable under CEQA, but less than cumulatively considerable under NEPA (as they are also less than cumulatively considerable prior to mitigation). Under both CEQA and NEPA, residual cumulative impacts to other special status species would not occur.

4.2.3.3 Cumulative Impact BIO-2: Cumulative Alteration or Reduction of Natural Habitats, Special Aquatic Sites, or Plant Communities – Cumulatively Considerable and Unavoidable

Cumulative Impact BIO-2 represents the potential of the proposed Project along with other cumulative projects to substantially reduce or alter state-, federally-, or locally-designated natural habitats, special aquatic sites, or plant communities, including wetlands.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Essential Fish Habitat (EFH). EFH has been and will be lost due to past, present, and future landfill projects in the Harbor. EFH protection requirements began in 1996, and thus, only apply to projects since that time. The projects in Table 4-1 that could result in a loss of EFH are Pier 400 (#1), Berths 136-147 Marine Terminal (#2), Channel Deepening (#4), Berths 97-109 (#15), Middle Harbor Terminal redevelopment (#69), Piers G & J (#70), and Pier T (#73). The Pier S Marine Terminal (#74) project could alter EFH through Back Channel safety improvements, and the West Basin Installation Restoration Site 7 Dredging Project (#80) could alter EFH through dredging. The losses since 1996 include fill for the Pier 400 project and part of the Channel Deepening project. These impacts were significant but mitigable under CEQA and NEPA, and the use of mitigation bank credits for the

1 marine habitat loss impacts also offset the losses of EFH. Impacts of fill for the
2 future projects would also be offset by use of mitigation credits. Temporary
3 disturbances within EFH also would occur during in-water construction activities
4 from cumulative projects San Pedro Waterfront (#3), Channel Deepening (#4),
5 Cabrillo Way Marina (#5), Berths 226-236 Improvements (#7), Consolidated Slip
6 Restoration (#14), Berths 97-109 (#15), Berths 212-214 (#25), Berths 121-131 (#29),
7 Middle Harbor Terminal Redevelopment (#69), Piers G & J (#70), Pier T (#73), Pier
8 S (#74), West Basin Installation Restoration Site 7 Dredging Project (#80), and
9 Sound Energy Solutions (#76). These disturbances in the Harbor occur at specific
10 locations that are scattered in space and time within the Harbor and would not likely
11 cause a significant impact to EFH. Increased vessel traffic and runoff from on-land
12 construction and operations resulting from the cumulative projects would not result in
13 a loss of EFH nor would these activities substantially degrade this habitat. Thus,
14 cumulative impacts to EFH would be less than significant.

15 Natural Habitats. Natural habitats, special aquatic sites (e.g., eelgrass beds, mudflats),
16 and plant communities (wetlands) have a limited distribution and abundance in the
17 Harbor. The 40-acre (16-ha) Pier 300 expansion project caused a loss of eelgrass beds
18 that was mitigated as part of the Pier 300 Project. The Southwest Slip fill in the West
19 Basin completed as part of the Channel Deepening Project resulted in a small loss of
20 saltmarsh that was also mitigated. Prior to agreements to preserve natural habitats such
21 as mitigation credit systems, losses of eelgrass, mudflats, and saltmarsh from early
22 landfill projects were not documented but were likely to have occurred due to the
23 physical changes to the Port. Therefore, cumulative impacts of construction activities
24 are considered significant. Oil spills from tankers in the Harbor would have the
25 potential to affect eelgrass beds at Cabrillo Beach and the Pier 300 Shallow Water
26 Habitat, mudflats, and the Cabrillo saltmarsh under a worst case scenario. Cumulative
27 oil spill impacts would be short term, significant, and unavoidable for eelgrass beds and
28 other natural habitats.

29 **Contribution of the Proposed Project (Prior to Mitigation)**

30 EFH. Neither the temporary construction disturbances for Berth 408, proposed
31 Project-related increases in vessel traffic, nor runoff from proposed Project backlands
32 during construction and operations would be cumulatively considerable under CEQA
33 and NEPA because these activities combined with those of other cumulative projects
34 would not result in a loss or substantial degradation of EFH. Although a small
35 amount (0.1 acre, 0.04 ha) of soft bottom would be converted to hard substrate (rock
36 placed around base of piles), no fill that would result in a loss of EFH would occur as
37 part of the proposed Project to contribute to cumulative impacts. Small oil spills (less
38 than 238 bbl) and larger spills that could occur as a result of proposed Project vessel
39 transit in the Harbor would be contained and cleaned up in compliance with SPCC
40 requirements and the proposed Project Oil Spill Contingency Plan (OSCP). Small to
41 large oil spills in offshore waters would also be cleaned up. Even a large spill would
42 not affect large numbers of fish in managed species relative to their regional
43 population size due to rapid weathering of the oil (i.e., loss of volatile/soluble toxic
44 components) and cleanup activities. Since the cumulative impact is less than
45 significant, the proposed Project would not result in a cumulatively considerable
46 contribution to a significant cumulative impact under CEQA and NEPA.

1 Natural Habitats. Impacts to the least tern SEA were addressed in **Cumulative**
2 **Impact BIO-1** above. Construction and operation of the proposed Project would
3 have no impacts to natural habitats such as mudflats, wetlands (including saltmarsh),
4 and native terrestrial plant communities, and less than significant impacts to marine
5 algal communities. Oil spills would not affect the Cabrillo saltmarsh due its location
6 behind the beach and the narrow connection to the Harbor that could be boomed to
7 prevent oil from entering. For eelgrass beds, construction and normal operations
8 would have no impacts, but impacts that could result from oil spills would be
9 significant in the short term. The negligible effects of the proposed Project on natural
10 habitats during construction and normal operation would not result in a cumulatively
11 considerable contribution to a significant cumulative impact on such habitats, sites, or
12 communities under CEQA and NEPA. Project-related oil spill impacts to eelgrass
13 beds, however, would make a cumulatively considerable contribution to a significant
14 and unavoidable cumulative impact.

15 **Mitigation Measures and Residual Cumulative Impacts**

16 No mitigation is required for the less than cumulatively considerable effects of
17 construction and operations disturbances to EFH and natural habitats other than oil
18 spill effects on eelgrass beds, and residual cumulative impacts would not be
19 considerable under CEQA and NEPA. Mitigation measures described in Section
20 3.12 (**MM RISK-2.1a** and **MM RISK-2.1b**) would apply to reduce the probability of
21 an oil spill; however, no mitigation measures can eliminate the risk entirely. Thus,
22 residual cumulative impacts related to the potential for oil spills to affect eelgrass
23 beds would be cumulatively considerable and unavoidable under CEQA and NEPA.

24 **4.2.3.4 Cumulative Impact BIO-3: Cumulative Interference with** 25 **Migration or Movement Corridors – No Impact**

26 **Cumulative Impact BIO-3** represents the potential of the proposed Project along
27 with other cumulative projects to interfere with wildlife migration or movement
28 corridors. Because the proposed Project would have no impacts to migration or
29 movement corridors, it also would have no cumulatively considerable contribution to
30 any cumulative impact. Since the proposed Project would have no impact, it is not
31 necessary to document the effects of past, present, and reasonably foreseeable future
32 projects.

33 **4.2.3.5 Cumulative Impact BIO-4: Cumulative Disruption of** 34 **Local Biological Communities – Cumulatively** 35 **Considerable and Unavoidable**

36 **Cumulative Impact BIO-4** represents the potential of the proposed Project along
37 with other projects to cause a cumulatively substantial disruption of local biological
38 communities (e.g., from the introduction of noise, light, or invasive species).

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Wharf Work. Construction of past projects in the Harbor has involved in-water disturbances such as wharf construction that temporarily removed or permanently added hard substrate habitat (e.g., piles). These disturbances altered the benthic habitats present at the location of the specific projects, but effects on benthic communities were localized and of short duration as invertebrates colonized the new hard surfaces. Because these activities affected a small portion of the Harbor at a time and colonization has occurred or is in progress, biological communities in the Harbor have not been degraded. Similar construction activities (e.g., wharf construction/reconstruction) would occur for some of the cumulative projects that are currently under way and for some of those that would be constructed in the future: Berths 136-147 Improvements (#2), Channel Deepening (#4), Cabrillo Way Marina (#5), Berths 236-336 Improvements (#7), Berths 97-109 (#15), Berths 212-214 (#25), Berths 121-131 (#29), Middle Harbor Terminal Redevelopment (#69), Piers G & J (#70), Pier T (#73), Pier S (#74), and Sound Energy Solutions (#76). Because colonization of new piles begins immediately and the attached biota provide a food source for other species, such as fish, within a short time, multiple projects spread over time and space within the Harbor would not substantially disrupt benthic communities. Construction disturbances at specific locations in the water and at different times that are caused by the cumulative projects, such as sound pressure waves from pile driving, can cause damage to fish and marine mammals or cause them to avoid the work area. These temporary disturbances are not expected to substantially alter the distribution and abundance of these organisms in the Harbor and thus would not substantially disrupt biological communities. Turbidity that results from in-water construction activities occurs in the immediate vicinity of the work and lasts just during the activities that disturb bottom sediments. Effects on marine biota are thus localized to relatively small areas of the harbor and of limited duration for each project. Those projects that are occurring at the same time but which are not in close proximity would thus not have additive effects. Cumulative impacts would be less than significant.

Furthermore, based on biological baseline studies described in Section 3.3 of the SEIS/SEIR, the benthic marine resources of the Harbor have not declined during Port development activities occurring since the late 1970s. The biological baseline conducted by MEC and Associates (2002) identified healthy benthic communities in the Outer Harbor despite major dredging and filling activities associated with the Port's Deep Draft Navigation Project (USACE and LAHD 1992).

Backland Construction and Operations. Runoff from construction activities on land has reached Harbor waters at some locations during past project construction, particularly for projects implemented prior to the 1970s when environmental regulations were promulgated. The past projects included Pier 300, Pier J, Pier 400, and the remaining terminal land areas within the Los Angeles-Long Beach Harbor. Runoff also has the potential to occur during present and future projects (all projects in Table 4-1 because all drainage in the area containing the cumulative projects listed is ultimately to the Harbor). Construction runoff would occur only during construction activities, so projects that are not concurrent would not have cumulative effects. Construction runoff would add to ongoing runoff from operation of existing

1 projects in the Harbor at specific project locations and only during construction
2 activities. For past, present, and future projects, the duration and location of such
3 runoff would vary over time. Measures such as berms, silt curtains, and
4 sedimentation basins are used to prevent or minimize runoff from construction, and
5 this keeps the concentration of pollutants below thresholds that could measurably
6 affect marine biota. Runoff from past construction projects (e.g., turbidity and any
7 pollutants) has either dissipated shortly after construction was completed or settled to
8 the bottom sediments. For projects more than 20 years in the past, subsequent
9 settling of suspended sediments has covered the pollutants, or the pollutants have
10 been removed by dredging projects. Runoff from operation of these past projects
11 continues but is regulated. Biological baseline surveys in the Harbor (MEC 1988,
12 MEC and Associates 2002) have not shown any disruption of biological communities
13 resulting from runoff. Effects of runoff from construction activities and operations
14 would not substantially disrupt local biological communities in the Harbor, and as a
15 consequence, past, present, and reasonably foreseeable future projects would not
16 result in significant cumulative local biological community impacts related to runoff.
17 Much of the development in the Harbor has occurred and continues to occur on
18 landfills that were constructed for that purpose. As a result, those developments did
19 not affect terrestrial biota. Redevelopment of existing landfills to upgrade or change
20 backland operations temporarily affected the terrestrial biota (e.g., landscape plants,
21 weeds, rodents, and common birds) that had come to inhabit or use these industrial
22 areas. Future cumulative developments such as hotels and other commercial
23 developments on lands adjacent to the Harbor would be in areas that do not support
24 natural terrestrial communities or are outside the region of analysis. Projects in
25 Table 4-1 that are within the geographical region of analysis and could affect
26 terrestrial biological resources are: Berths 136-147 Improvements (#2, Berths 226-
27 236 Expansion (#7), SSA Outer Harbor Fruit Facility Relocation (#9), Crescent
28 Warehouse Company Relocation (#10), Ultramar (#12), Westway Decommissioning
29 (#13), Berths 97-109 (#15), Berths 171-181 (#16), Berths 206-209 (#17), LAXT
30 Demolition (#18), Pan-Pacific Demolition (#10), San Pedro Waterfront Enhancement
31 (#21), Joint Container Facility (#22), Berth 302-305 APL (#23), South Wilmington
32 Grade Separation (#24), Avalon Boulevard Corridor Project (#25), "C"
33 Street/Figueroa Street Interchange (#26), Berths 212-224 (#28), Berths 121-131
34 (#29), Southwest Marine Demolition (#30), Marine Research Center (#33), Banning
35 Elementary School #1 (#57), East Wilmington Greenbelt Community Center (#58),
36 Dana Strand Redevelopment (#60), Pier A West Remediation (#71), Pier A East
37 (#72), Pier T TTI (#73), Pier S (#74), and Schuyler Heim Bridge Replacement (#81).
38 Construction and operation of these projects would not substantially disrupt
39 terrestrial biological communities because no well-developed communities are
40 present and no bird nesting is expected at any of the cumulative project sites. Based
41 on this, past, present, and reasonably foreseeable future projects would not result in
42 significant cumulative local biological community impacts related to upland
43 development within the geographical scope.

44 **Vessel Traffic.** Cumulative marine terminal/berth upgrade projects (e.g., San Pedro
45 Waterfront, Channel Deepening, Berths 226-236 Improvements, Pier 400 Oil Marine
46 Terminal, Ultramar, China Shipping, LAXT Crude Oil, YTI, Yang Ming, Middle
47 Harbor, Piers G & J, Pier T TTI, and Pier S) that involve vessel transport of cargo
48 into and out of the Harbor have increased vessel traffic in the past and would
49 continue to do so in the future. These vessels have introduced invasive exotic species
50 into the Harbor through ballast water discharges and via their hulls. Ballast water

1 discharges are now regulated so that the potential for introduction of invasive exotic
2 species by this route has been greatly reduced. The potential for introduction of
3 exotic species via vessel hulls has remained about the same, and use of antifouling
4 paints and periodic cleaning of hulls to minimize frictional drag from growth of
5 organisms keeps this source low. While exotic species are present in the Harbor,
6 there is no evidence that these species have disrupted the biological communities in
7 the Harbor. Biological baseline studies conducted in the Harbor continue to show the
8 existence of diverse and abundant biological communities. However, absent the
9 ability to eliminate the introduction of new species through ballast water or on vessel
10 hulls, it is possible that additional invasive exotic species could become established
11 in the Harbor over time, even with these control measures. As a consequence, past,
12 present, and reasonably foreseeable future projects would result in significant
13 cumulative local biological community impacts related to the introduction of invasive
14 species.

15 The amount of chemicals released to Harbor waters from leaching of antifouling
16 paints on vessel hulls would increase in proportion to the number of vessels resulting
17 from cumulative projects. As described below for Water Quality (Section 4.2.14),
18 cumulative impacts would be significant because waters in parts of the Harbor are
19 impaired for some of these chemicals. However, the concentration of chemicals
20 toxic to marine biota would not be increased to a level that would substantially
21 disrupt local communities, and cumulative impacts to local biological communities
22 would be less than significant.

23 A long-term increase in the transport of crude oil and/or petroleum products through
24 the Los Angeles-Long Beach Harbor area would result from projects Ultramar (#12),
25 Sound Energy Solutions (#76), and Chemoil (#79) (assuming that petroleum product
26 throughput and number of vessels would increase) as well as the proposed Project.
27 This would increase the potential for accidental spills of these products into Harbor
28 waters in proportion to the number of vessels and product transfers. A spill from the
29 existing pipelines over Dominguez Channel is unlikely to occur but could release oil
30 into Inner Harbor waters at that location. Accidents during tanker transit through the
31 Harbor to existing berths could also release oil to Harbor waters. Small spills of less
32 than 238 bbl are expected to have less than significant impacts on local biological
33 communities because the area affected would be localized, no sensitive species are
34 likely to be affected, and containment and cleanup procedures would reduce the
35 severity of impacts. In the worst case, however, a moderate to large spill that affects
36 large numbers of water-associated birds such as gulls or large amounts of intertidal
37 invertebrate communities could have significant cumulative impacts.

38 Oil spills on land would likely be at tank farms within containment berms where few
39 to no biological resources are present and would be cleaned up immediately. Spills
40 from pipelines would likely be underground or in containment areas at oil facilities.
41 Cumulative impacts to local terrestrial biological communities would be less than
42 significant.

43 **Contribution of the Proposed Project (Prior to Mitigation)**

44 **Wharf Work.** Driving piles for construction of Berth 408 would temporarily disturb
45 benthic habitat in a small portion of the Outer Harbor adjacent to Pier 400 and would

1 cause sound pressure waves at intervals as each pile is driven. Placement of rock at
2 the base of the piles would convert a small amount (0.1 acre, 0.04 ha) of soft bottom
3 to hard substrate habitat. Recolonization of disturbed marine environments and
4 colonization of new rock and piles begins rapidly. Effects of sound pressure waves
5 would be of short duration and would not be additive to effects of other cumulative
6 projects due to the distance and intervening land masses between the proposed
7 Project and other cumulative projects with pile driving that could occur at the same
8 time. The minor proposed Project effects would not result in a cumulatively
9 considerable contribution to a significant cumulative impact under CEQA and NEPA.

10 **Backland Construction and Operations.** Runoff from temporary disturbances on
11 land during construction of the proposed Project Marine Terminal, tank farms, and
12 pipelines would add to the cumulative amount of construction runoff from all other
13 projects in the Harbor that are being constructed concurrently with the proposed
14 Project. Construction activities are closely regulated, and runoff of pollutants in
15 quantities that could adversely affect marine biota is not likely to occur.
16 Furthermore, runoff from the proposed Project and most of the cumulative projects
17 would not occur simultaneously but rather would be events scattered over time so
18 that total runoff to harbor waters would be dispersed, both in frequency and location.
19 Construction of the proposed Project would result in less than significant impacts on
20 local marine biological communities through runoff under CEQA and NEPA because
21 runoff control measures, as specified in a SWPPP, would be implemented and
22 maintained as required in project permits, and the small amounts of pollutants that
23 could pass the BMPs would not substantially affect marine organisms in Harbor
24 waters and on hard substrate due to expected low concentrations, relative to ambient
25 conditions. The minor proposed Project effects would not result in a cumulatively
26 considerable contribution to a significant cumulative impact.

27 Construction and operation of the proposed Project would have minimal effects on
28 terrestrial habitats in an existing industrial area that would not disrupt local biological
29 communities. At Tank Farm Site 1, however, Caspian and elegant terns have nested
30 in the past and could nest there again prior to proposed Project construction if
31 conditions were suitable and the terns were present in the area. In a worst case, if
32 these or other birds were nesting as construction begins, impacts to nesting birds
33 would be significant but feasibly mitigated. Construction activities at Tank Farm Site
34 1 could result in disruption of bird nesting, but these effects would not contribute to
35 cumulative impacts as none were identified for the cumulative projects. Construction
36 and operation of the proposed Project would have less than significant impacts on
37 other terrestrial biological communities under CEQA and NEPA because the species
38 present are predominantly non-native and/or are adapted to the industrial area. The
39 minor proposed Project effects would not result in a cumulatively considerable
40 contribution to a significant cumulative impact.

41 **Vessel Traffic.** The small increase in vessel traffic in the Harbor (less than 7 percent
42 compared to the CEQA Baseline) caused by the proposed Project would add to the
43 cumulative potential for introduction of exotic species. Many exotic species have
44 already been introduced into the Harbor, and many of these introductions occurred
45 prior to implementation of ballast water regulations. These regulations would reduce
46 the potential for introduction of non-native species, including from project-related
47 vessels. Furthermore, oil tankers unloading at Berth 408 would be taking on ballast
48 water and not discharging it. However, exotic species from vessel hulls could still be

1 introduced into the Harbor. Proposed Project impacts relative to the introduction of
2 non-native species have the potential to be significant prior to mitigation, and effects
3 of the proposed Project could make a cumulatively considerable contribution to the
4 significant cumulative impact under CEQA. Compared to the NEPA Baseline, the
5 proposed Project would have fewer vessel calls to the Harbor. Although project-
6 related vessels could still introduce exotic species, the potential for such
7 introductions would be less than under baseline conditions. Because the proposed
8 Project would not increase the potential for introduction of exotic species it would
9 not, under NEPA, result in a cumulatively considerable contribution to a significant
10 cumulative impact.

11 The amount of chemicals in Harbor waters from leaching of antifouling paints on
12 proposed Project vessel hulls would not increase the concentration of chemicals toxic
13 to marine biota to a level that would substantially disrupt local communities. The
14 minor proposed Project effects would not result in a cumulatively considerable
15 contribution to a significant cumulative impact on local biological communities.

16 **Oil Spills.** The frequency of oil spills from proposed Project tankers in offshore
17 waters while approaching the Port, inside the Port while in transit to Berth 408, or
18 while offloading oil at Berth 408 would be low to remote. Spills from MGO barges
19 could occur during transit from existing terminals in the Harbor to Berth 408 and
20 while unloading at Berth 408. The only pipeline spills likely to reach Harbor waters
21 would be from the pipelines over Dominguez Channel and over the Pier 400
22 causeway gap. The proposed Project would have the potential for significant
23 impacts, prior to mitigation, to marine birds, such as gulls, and intertidal invertebrate
24 communities from accidental oil spills directly into Harbor waters and to marine
25 birds in offshore waters. Therefore, effects of the proposed Project would make a
26 cumulatively considerable contribution to the significant cumulative impact.

27 Oil spills at the tank farm facilities would be within bermed containment areas that
28 have little to no biological resources present, and spills from most of the pipelines
29 would be under ground with no impacts to terrestrial biological resources. The
30 negligible proposed Project effects would not result in a cumulatively considerable
31 contribution to a significant cumulative impact.

32 **Mitigation Measures and Residual Cumulative Impacts**

33 No mitigation measures are required for the proposed Project's less than
34 cumulatively considerable contribution to impacts on marine communities from
35 wharf construction and from site runoff during construction and operations, or on
36 terrestrial communities from construction and operation of the proposed Project.
37 **MM BIO-1.1g** and **MM BIO-1.1h** would reduce impacts to nesting birds at Tank
38 Farm Site 1 to less than significant.

39 Although ballast water regulations reduce the potential for introduction of invasive
40 species, no mitigation measures are currently available to prevent introduction of
41 these species. Therefore, the proposed Project's contribution to the significant
42 cumulative impacts of oil spills and introduction of invasive species would be
43 considered cumulatively considerable and unavoidable under CEQA. Under NEPA,
44 because the proposed Project would not increase the potential for introduction of

1 exotic species it would not result in a cumulatively considerable contribution to a
2 significant cumulative impact.

3 Standard spill prevention plans and measures already required for such facilities, as
4 well as **MM RISK-2.1a** and **MM RISK-2.1b**, would reduce the potential for oil
5 spills to the extent feasible, and no mitigation measures are available to reduce
6 impacts further. **MM BIO-1.2c** would reduce but not eliminate the potential for
7 impacts of oil spills in the Harbor to marine birds. Under CEQA and NEPA, the
8 proposed Project would have the potential to make a cumulatively considerable
9 contribution to cumulatively significant impacts to marine birds, such as gulls, and
10 intertidal invertebrate communities from accidental oil spills directly into Harbor
11 waters and to marine birds in offshore waters.

12 **4.2.4 Cultural, Archaeological, and** 13 **Paleontological Resources**

14 **4.2.4.1 Scope of Analysis**

15 The geographic region of analysis for cumulative effects on cultural, archaeological,
16 historical architectural, and paleontological resources related to Port projects consists
17 of the areas at the Port and in the immediate vicinity within natural landforms (i.e.,
18 excluding modern Port in-fill development), and in water where there may be
19 submerged prehistoric remains and/or where there is evidence that historical
20 maritime activity could have occurred. Thus, past, present, planned and foreseeable
21 future development that would contribute to cumulative impacts on archaeological
22 resources under CEQA and NEPA includes projects that would have the potential for
23 ground disturbance in this region of analysis. Those projects on land that have the
24 potential to modify and/or demolish structures over 50 years of age have the potential
25 under CEQA and NEPA to contribute to cumulative impacts on historical
26 architectural resources. Projects that involve grading of intact, natural landforms (i.e.,
27 not modern landfill areas) have the potential under CEQA and NEPA to contribute to
28 cumulative impacts on paleontological resources.

29 **4.2.4.2 Cumulative Impact CR-1a: Cumulative Impacts on** 30 **Archaeological or Ethnographic Resources – Less than** 31 **Cumulatively Considerable with Mitigation**

32 **Cumulative Impact CR-1a** represents the potential of the proposed Project along
33 with other projects to disturb, damage, or degrade listed, eligible, or otherwise unique
34 or important archaeological, or ethnographic resources.

35 **Impacts of Past, Present, and Reasonably Foreseeable Future** 36 **Projects**

37 Archaeologists estimate that past and present projects within urban areas including
38 the project vicinity have destroyed over 80 percent of all prehistoric sites without

1 proper assessment and systematic collection of information beforehand. As
2 prehistoric sites are non-renewable resources, the cumulative direct and indirect
3 impacts of these actions are significant. Such projects have eliminated our ability to
4 study sites that may have been likely to yield information important in prehistory. In
5 other words, the vast majority of the prehistoric record has been already lost.

6 Construction activities (i.e., excavation, dredging, and land filling) associated with
7 present and future Port projects, including the Berths 136-147 Marine Terminal (#2),
8 Ultramar Lease Renewal Project (#12), Channel Deepening Project (#4), Berths 97-
9 109 Container Terminal Project (#15), and Evergreen Backlands Improvements
10 Project (#7) would potentially require excavation. These activities, however, would
11 be in areas of historical estuary habitats and recent landfills, and therefore would not
12 be within the landforms inhabited by Native American populations. Although much
13 of the area has been previously disturbed, there is the potential for other related
14 upland Port projects including the South Wilmington Grade Separation (#24), Avalon
15 Boulevard Corridor Development (#25), and “C” Street/Figueroa Street Interchange
16 (#26) on the periphery of the Port (i.e., in upland areas) to disturb unknown, intact
17 subsurface prehistoric or historic archaeological resources. Reasonably foreseeable
18 future projects within upland areas, i.e. the Community of San Pedro (#44, #46, #50,
19 #51, #52, #53, #54, #55, #58), Community of Wilmington (#59, #64), Harbor City,
20 Lomita, and Torrance (#64, #65, #66, #68), and City of Long Beach (#85), would
21 also potentially contribute to this impact. Note that many of these reasonably
22 foreseeable future projects would be in upland areas more than 100 feet from waters
23 of the U.S. and therefore outside of USACE jurisdiction.

24 Even with application of mitigation for proper site assessment (e.g., defining the
25 resource and sampling a portion of the area to be destroyed), it is impossible to retain
26 all information that is represented in a given assemblage of prehistoric site remains.
27 Similarly, the destruction of any archaeological site, regardless of its condition (i.e.,
28 previously disturbed or intact) represents a loss of heritage values to contemporary
29 Native Americans. Thus, these projects have the ability to collectively result in a
30 significant cumulative impact to which the proposed Project might contribute.

31 **Contribution of the Proposed Project (Prior to Mitigation)**

32 As documented in Section 3.4.4.3.1 (**Impact CR-1a**), there are no recorded listed,
33 eligible, or otherwise unique or important archaeological or ethnographic resources
34 within the proposed Project site. The proposed Pier 400 Marine Terminal and Tank
35 Farm Site 1 are located on imported fill soils, such that the probability of
36 encountering intact, unknown archaeological resources is remote. Disturbances for
37 these improvements would not impact intact natural landforms where prehistoric
38 occupation could have occurred. Thus, the potential for disturbing, damaging, or
39 degrading unknown prehistoric remains or ethnographic resources considered
40 significant to contemporary Native Americans is remote.

41 Construction activities associated with Pipeline Segments 2a, 2b, 2c and Tank Farm
42 Site 2 on Terminal Island and portions of proposed Pipeline Segments 3 and 4 from
43 Mormon Island to Plains pipelines systems near Henry Ford Avenue and near or on the
44 Ultramar/Valero Refinery would potentially encroach within native soils. However, due
45 to the absence of known archaeological and historical resources and the extent of

1 disturbed soils and historic fill in the proposed Project area, the probability of
2 encountering any intact, unknown historic resources is low. Prior to the
3 implementation of **MM CR-1a**, impacts from the proposed Project on archaeological
4 or ethnographic resources would be less than significant. Therefore, the proposed
5 Project would make a less than cumulatively considerable contribution to a
6 significant cumulative effect on known archaeological or ethnographic resources.

7 **Mitigation Measures and Residual Cumulative Impacts**

8 **MM CR-1a**, as described in Section 3.4.4.3.1, provides that, in the highly unlikely
9 event that previously unknown, intact, cultural or human resources are encountered
10 on land during any construction activities, work shall be temporarily halted and
11 redirected until a Port-qualified archaeologist evaluates the significance of the find.
12 The referenced section provides additional information about this mitigation
13 measure. Although impacts from the proposed Project would be less than significant,
14 **MM CR-1a** was added in the remote chance that previously unknown archaeological
15 or ethnographic resources are encountered during construction. There are no known
16 archaeological and ethnographic resources in the project area that would be
17 significantly affected by the proposed Project, and the proposed Project would make
18 a less than cumulatively considerable contribution to a significant cumulative impact
19 on known archaeological and ethnographic resources under CEQA and NEPA.

20 **4.2.4.3 Cumulative Impact CR-1b: Cumulative Impacts on** 21 **Historic Architectural Resources – No Impact**

22 **Cumulative Impact CR-1b** represents the potential of the proposed Project along
23 with other cumulative projects to disturb structures that have been determined
24 eligible for the California Register of Historic Places or the National Register of
25 Historic Places, or otherwise considered unique or important historic architectural
26 resources under CEQA and NEPA.

27 As documented in Section 3.4.4.3.1 (**Impact CR-1b**), construction of tank farms at
28 Tank Farm Site 2 would potentially require relocation of existing railroad tracks.
29 The existing railroad track was constructed in 1997 and does not meet federal or state
30 eligibility criteria. The proposed Project tank farm construction activities would have
31 no potential impact on historic architectural resources. As construction of the Berth
32 408 Marine Terminal would occur on vacant land composed of recent fill placement
33 material, no impact on historic architectural resources would occur. Construction of
34 the proposed pipelines and associated facilities would be in right of way areas and
35 would not affect historic architectural resources.

36 Since the proposed Project would have no adverse effects whatsoever on historic
37 architectural resources, it would not contribute to any cumulatively significant
38 impacts on these resources under CEQA and NEPA. Therefore, it is not necessary to
39 document the effects of past, present, and reasonably foreseeable future projects in
40 terms of **Cumulative Impact CR-1b**.

41 As the proposed Project would have no adverse effects on historic architectural
42 resources, no mitigation measures are required. The proposed Project would have no

1 residual cumulative impact on architectural historical resources under CEQA and
2 NEPA.

3 **4.2.4.4 Cumulative Impact CR-2: Cumulative Impacts on** 4 **Paleontological Resources – No Impact**

5 **Cumulative Impact CR-2** represents the potential of the proposed Project along
6 with other cumulative projects to result in the permanent loss of, or loss of access to,
7 a paleontological resource of regional or statewide significance.

8 The proposed Project area is located on imported fill soils that have no potential to
9 contain intact vertebrate fossils or in areas with no recorded important or unique
10 vertebrate fossil remains. Based on this analysis, the proposed Project would have no
11 impact on paleontological resources under CEQA and NEPA. Therefore, the
12 proposed Project would not have a cumulatively considerable contribution to impacts
13 on paleontological resources prior to mitigation.

14 Since the proposed Project would have no adverse effects whatsoever on
15 paleontological resources, it would not contribute to any cumulatively significant
16 impacts on these resources under CEQA and NEPA. Therefore, it is not necessary to
17 document the effects of past, present, and reasonably foreseeable future projects in
18 terms of **Cumulative Impact CR-2**.

19 As the proposed Project would have no adverse effects on paleontological resources,
20 no mitigation measures are required. The proposed Project would have no
21 cumulative impact on paleontological resources under CEQA and NEPA.

22 **4.2.5 Geology**

23 **4.2.5.1 Scope of Analysis**

24 The geographic scope for cumulative impacts varies for geological resources,
25 depending on the geologic issue. The geographic scope with respect to seismicity is
26 the San Pedro Bay Ports Harbor area, as an earthquake capable of creating substantial
27 damage or injury at the proposed Project site could similarly cause substantial
28 damage or injury throughout this area of man-made fill, which is prone to
29 liquefaction and differential settlement. The geographic scope with respect to
30 tsunamis is the area of potential inundation due to a large tsunami, which could
31 extend throughout the low-lying coastal areas of Los Angeles and Orange counties.
32 The geographic scope with respect to subsidence/settlement, expansive soils, and
33 unstable soil conditions would be confined to the proposed Project area, as these
34 impacts are site-specific and relate primarily to construction techniques. There is no
35 geographic scope with respect to landslides, mudflows, and modification of
36 topography or unique geologic features, as the Port area is generally flat, not subject
37 to slope instability, and contains no unique geologic features. The geographic scope
38 with respect to mineral resources is the Wilmington Oil Field, which traverses the
39 northern portion of the proposed Project area and extends to the northwest and

1 southeast, as mineral resource impacts relate primarily to potential loss of petroleum
2 reserves in the Wilmington Oil Field.

3 Past, present, and reasonably foreseeable future developments that could contribute
4 to cumulative impacts associated with geologic resources, under both CEQA and
5 NEPA, are those that involve the addition of new land area, infrastructure, and
6 personnel that would be subject to earthquakes and tsunamis, or would preclude
7 additional development of the Wilmington Oil Field.

8 All projects located in the San Pedro Bay Ports are subject to severe seismically
9 induced ground shaking due to an earthquake on a local or regional fault. Structural
10 damage and risk of injury as a result of such an earthquake are possible for most
11 cumulative projects listed in Table 4-1, with the exception of, for example, the
12 Channel Deepening Project and the Artificial Reef Project, as these projects do not
13 involve existing or proposed structural engineering or onsite personnel.

14 The significance criteria used for the cumulative analysis are the same as those used
15 for the proposed Project in Section 3.5.4.2, and for both the CEQA and NEPA
16 analyses.

17 **4.2.5.2 Cumulative Impact GEO-1: Fault rupture, seismic**
18 **ground shaking, liquefaction, or other seismically**
19 **induced ground failure – Cumulatively Considerable and**
20 **Unavoidable**

21 **Cumulative Impact GEO-1** addresses the degree to which the proposed Project,
22 along with other cumulative projects, places structures and/or infrastructure in danger
23 of substantial damage or exposes people to substantial risk following a seismic event.

24 Southern California is recognized as one of the most seismically active areas in the
25 United States. The region has been subjected to at least 52 major earthquakes (i.e., of
26 magnitude 6 or greater) since 1796. Earthquakes of magnitude 7.8 or greater occur at
27 the rate of about two or three per 1,000 years, corresponding to a 6 to 9 percent
28 probability in 30 years. Therefore, it is reasonable to expect a strong ground motion
29 seismic event during the lifetime of any proposed project in the region.

30 Ground motion in the region is generally the result of sudden movements of large
31 blocks of the earth's crust along faults. Numerous active faults in the Los Angeles
32 region are capable of generating earthquake-related hazards, particularly in the harbor
33 area, where the Palos Verdes Fault is present and hydraulic and alluvial fill are
34 pervasive. Also noteworthy, due to its proximity to the site, is the Newport-
35 Inglewood Fault, which has generated earthquakes of magnitudes ranging from 4.7 to
36 6.3 Richter scale. Large events could occur on more distant faults in the general area,
37 but the effects at the cumulative geographic scope would be reduced due to the
38 greater distance.

39 Seismic groundshaking is capable of providing the mechanism for liquefaction,
40 usually in fine-grained, loose to medium dense, saturated sands and silts. The effects

1 of liquefaction may result in structural collapse if total and/or differential settlement
2 of structures occurs on liquefiable soils.

3 **Impacts of Past, Present, and Reasonably Foreseeable Future** 4 **Projects**

5 Past, present, and reasonably foreseeable future projects (and the proposed Project)
6 would not change the risk of seismic ground shaking. However, past projects have
7 resulted in the backfilling of natural drainages at Port of Los Angeles berths with various
8 undocumented fill materials. In addition, dredged materials from the harbor area were
9 spread across lower Wilmington from 1905 until 1910 or 1911 (Ludwig 1927). In
10 combination with natural soil and groundwater conditions in the area (i.e.,
11 unconsolidated, soft, and saturated natural alluvial deposits and naturally occurring
12 shallow groundwater), backfilling of natural drainages and spreading of dredged
13 materials associated with past development at the Port has resulted in conditions with
14 increased potential for liquefaction following seismic ground shaking.

15 In addition, past development has increased the amount of infrastructure, structural
16 improvements, and the number of people working onsite in the San Pedro Bay Ports
17 Harbor area (i.e., the cumulative geographic scope). This past development has placed
18 commercial, industrial and residential structures and their occupants in areas that are
19 susceptible to seismic ground shaking. Thus, these developments have had the effect of
20 increasing the potential for seismic ground shaking to result in damage to people and
21 property. The proposed Project and many of the related sites share interconnected
22 infrastructure (e.g., roads, utilities, pipelines, wharves, etc.) that could be impacted by
23 seismically induced ground failure. The amount of overlapping infrastructure that is
24 susceptible to failure is increased by the addition of each cumulative project.
25 Infrastructure failure at multiple facilities is cumulatively greater than failure at
26 individual facilities, as regional infrastructure becomes increasingly unusable with
27 combined failure.

28 All of the present and reasonably foreseeable future projects listed in Table 4-1, with the
29 exception of the Channel Deepening Project (#4) and the Artificial Reef Project (#6), as
30 these do not involve existing or proposed structural engineering or onsite personnel,
31 would also result in increased infrastructure, structure, and number of people working
32 onsite in the cumulative geographic scope. Therefore, the effects of past, present, and
33 reasonably foreseeable future projects would be cumulatively significant, under both
34 CEQA and NEPA.

35 **Contribution of the Proposed Project (Prior to Mitigation)**

36 As discussed in Section 3.5.4.3.1, the proposed Project would result in significant
37 impacts relative to **Impact GEO-1**, even with incorporation of modern construction
38 engineering and safety standards. The proposed Project would not increase the risk
39 of seismic ground shaking, but it would contribute to the potential for seismically
40 induced fault rupture and/or ground shaking to result in damage to people and
41 structures, because it would increase the amount of structures and people working at
42 the Port, including oil pipelines that would traverse the Palos Verdes Fault Zone.

1 The impact of the proposed Project will make a cumulatively considerable
2 contribution to the significant cumulative impact, under both CEQA and NEPA.

3 **Mitigation Measures and Residual Cumulative Impacts**

4 The Port uses a combination of probabilistic and deterministic seismic hazard
5 assessment for seismic design prior to any construction projects. Structures and
6 infrastructure planned for areas with high liquefaction potential and fault rupture
7 potential must have installation or improvements that comply with regulations to
8 ensure proper construction and consideration for associated hazards.

9 However, even with incorporation of modern construction engineering and safety
10 standards, no mitigation is available that would reduce impacts to less than cumulatively
11 considerable in the event of a major earthquake. Therefore, the proposed Project would
12 result in a cumulatively considerable and unavoidable impact.

13 **4.2.5.3 Cumulative Impact GEO-2: Tsunamis or Seiches –** 14 **Cumulatively Considerable and Unavoidable**

15 **Cumulative Impact GEO-2** addresses the degree to which the proposed Project,
16 along with other cumulative projects, exposes people and structures to substantial
17 risk from local or distant tsunamis or seiches.

18 Tsunamis are a relatively common natural hazard, although most of the events are
19 small in amplitude and not particularly damaging. As has been shown historically,
20 the potential loss of human life following a tsunami or seiche can be great in a
21 populated area if a large submarine earthquake or landslide occurs. As discussed in
22 Chapter 3.5.3.1, abrupt sea level changes associated with tsunamis in the past had a
23 great impact on human life. Tsunamis also have reportedly caused damage to
24 moored vessels within the outer portions of the Los Angeles Harbor. Gasoline from
25 damaged boats have caused a major spill in the Harbor waters and created a fire
26 hazard following a seiche. Currents of up to 8 knots and a 6-ft (1.8-m) rise of water
27 in a few minutes have been observed in the West Basin.

28 For on-site personnel, the risk of tsunami or seiches is a part of any ocean-shore interface
29 and hence personnel working in the cumulative effects area cannot avoid some risk of
30 exposure. Similarly, berth infrastructure, cargo/containers, and tanker vessels would be
31 subject to some risk of damage as well. Designing new facilities based on existing
32 building codes may not prevent substantial damage to structures from coastal flooding.

33 **Impacts of Past, Present, and Reasonably Foreseeable Future** 34 **Projects**

35 Past, present, and reasonably foreseeable future projects (and the proposed Project)
36 would not change the risk of tsunamis or seiches. However, past projects have resulted in
37 the backfilling of natural drainages and creation of new low-lying land areas, which are
38 subject to inundation by tsunamis or seiches. In addition, past development has increased
39 the amount of infrastructure, structural improvements, and the number of people working

1 onsite in the San Pedro Bay Ports Harbor area. This past development has placed
2 commercial and industrial structures and their occupants in areas that are susceptible to
3 tsunamis and seiches. Thus, these developments have had the effect of increasing the
4 potential for tsunamis and seiches to result in damage to people and property. The
5 proposed Project and many of the related sites share interconnected infrastructure
6 (e.g., roads, utilities, pipelines, wharves, etc.) that could be impacted by tsunamis.
7 The amount of overlapping infrastructure that is susceptible to failure is increased by
8 the addition of each cumulative project. Infrastructure failure at multiple facilities is
9 cumulatively greater than failure at individual facilities, as regional infrastructure
10 becomes increasingly unusable with combined failure.

11 All of the present and reasonably foreseeable future projects listed in Table 4-1, with the
12 exception of the Channel Deepening Project (#4) and the Artificial Reef Project (#6), as
13 these do not involve existing or proposed structural engineering or onsite personnel,
14 would also result in increased infrastructure, structure, and number of people working
15 onsite in the cumulative geographic scope. Therefore, the effects of past, present, and
16 reasonably foreseeable future projects would be cumulatively significant, under both
17 CEQA and NEPA.

18 **Contribution of the Proposed Project (Prior to Mitigation)**

19 As discussed in Section 3.5.4.3.1, tsunamis and seiches are typical for the entire
20 California coastline and the risks of such events occurring would not be increased by
21 construction or operation of the proposed Project. However, because the proposed
22 Project elevation is located within 15 feet (4.6 m) above MLLW, there is a
23 substantial risk of coastal flooding at the proposed Project site in the event of a
24 tsunami and/or seiche and impacts would be significant. The additional
25 infrastructure, structural improvements, and onsite personnel associated with the
26 proposed Project would contribute to the potential for damage to infrastructure and
27 harm to people. The impact of the proposed Project would make a cumulatively
28 considerable contribution to the significant cumulative impact, under both CEQA and
29 NEPA.

30 **Mitigation Measures and Residual Cumulative Impacts**

31 **MM GEO-1**, Emergency Response Planning would apply to the proposed Project's
32 contribution. This measure states that the Terminal operator shall work with Port
33 engineers and Port police to develop tsunami response training and procedures to
34 assure that construction and operations personnel will be prepared to act in the event
35 of a large seismic event and/or tsunami warning. Such procedures shall include
36 immediate evacuation requirements in the event that a large seismic event is felt at
37 the proposed Project site, and/or a tsunami warning is given, as part of overall
38 emergency response planning for this proposed Project.

39 Such procedures shall be included in any bid specifications for construction or
40 operations personnel, with a copy of such bid specifications to be provided to LAHD,
41 including a completed copy of its operations emergency response plan prior to
42 commencement of construction activities and/or operations.

1 Emergency planning and coordination between the Terminal operator and LAHD
2 would contribute in reducing injuries to on-site personnel during a tsunami.
3 However, even with incorporation of emergency planning, substantial damage and/or
4 injury could occur in the event of a tsunami or seiche. No mitigation is available that
5 would reduce impacts to less than cumulatively significant, or the contribution of the
6 proposed Project to less than cumulatively considerable, in the event of a major
7 tsunami. Therefore, the proposed Project would result in a cumulatively considerable
8 and unavoidable impact.

9 **4.2.5.4 Cumulative Impact GEO-3: Land Subsidence/Settlement** 10 **– Less Than Cumulatively Considerable**

11 **Cumulative Impact GEO-3** addresses the degree to which the proposed Project, along
12 with other cumulative projects, could result in substantial damage to structures or
13 infrastructure or expose people to substantial risk of injury as a result of subsidence or
14 soil settlement. In the absence of proper engineering, new structures could be cracked
15 and warped as a result of saturated, unconsolidated/compressible sediments.

16 **Impacts of Past, Present, and Reasonably Foreseeable Future** 17 **Projects**

18 The cumulative geographic scope is the same as the proposed Project site, because
19 the effects of subsidence/settlement are site-specific and related primarily to
20 construction techniques. Regional subsidence due to historic oil withdrawal has been
21 arrested through subsurface water injection; therefore, regional subsidence impacts
22 are not anticipated. However, localized settlement could occur as a result of
23 improperly placed Project-related fill (e.g., pipeline trench backfill) or collapse of
24 subsurface soils during HDD operations.

25 Past projects on the site of the proposed Project site have contributed fill and
26 therefore there is risk, albeit low, of settlement. Pier 400 is a rock-dike-retained
27 hydraulic landfill island that was constructed in two stages from 1994 to 2000 using
28 the latest geotechnical engineering data available. Therefore, the risk of settlement of
29 these recently engineered fills is low. The proposed pipeline traverses areas of much
30 older fill that may have been subject to settlement during the years following
31 construction. However, the risk of such settlement decreases over a relatively long
32 period of time as potential areas of non-uniformly compacted fill settles and
33 generally reaches equilibrium in the years immediately following construction.
34 Therefore, the risk of (non-seismic related) settlement impacts in these older areas of
35 fill is low. (See **Impact GEO-1** for a discussion of potential seismic-related
36 differential settlement.)

37 **Contribution of the Proposed Project (Prior to Mitigation)**

38 Settlement impacts in proposed Project backland areas would be less than significant
39 under CEQA, as the proposed Project would be designed and constructed in
40 compliance with the recommendations of the geotechnical engineer, consistent with
41 Sections 91.000 through 91.7016 of the Los Angeles Municipal Code, and in

1 conjunction with criteria established by LAHD and Caltrans, and would not result in
2 substantial damage to structures or infrastructure, or expose people to substantial risk of
3 injury. With the exception of Pier 400, which was constructed very recently using the
4 latest available geotechnical engineering information, past projects along the proposed
5 pipeline route may have contributed to fill that was non-uniformly compacted, resulting
6 in soil settlement. However, as described above, such settlement would have occurred
7 primarily in the years immediately following construction, such that the contribution of
8 risk of those past projects would be less than significant. Therefore, the proposed
9 Project would not result in a cumulatively considerable contribution to a significant
10 cumulative impact, under CEQA and NEPA.

11 **Mitigation Measures and Residual Cumulative Impacts**

12 None are required, as the contribution of the proposed Project would be less than
13 cumulatively considerable, under CEQA and NEPA.

14 **4.2.5.5 Cumulative Impact GEO-4: Expansive Soils – Less Than** 15 **Cumulatively Considerable**

16 **Cumulative Impact GEO-4** addresses the degree to which the proposed Project, along
17 with other cumulative projects, results in substantial damage to structures or
18 infrastructure or expose people to substantial risk of injury as a result of expansive soils.
19 Expansive soil may be present in dredged or imported soils used for grading. Expansive
20 soils beneath a structure could result in cracking, warping, and distress of the foundation.

21 **Impacts of Past, Present, and Reasonably Foreseeable Future** 22 **Projects**

23 The cumulative geographic scope is the same as the proposed Project site, because
24 the effects of expansive soils are site-specific and related primarily to construction
25 techniques. Past projects on the site of the proposed Project site have contributed to
26 fill and therefore risk of expansive soils. However, because only past, present, and
27 reasonably foreseeable future projects on the proposed project site would contribute
28 along with the proposed Project to a cumulative impact in this impact area, and no other
29 such projects are identified, impacts would not be cumulatively significant, under both
30 CEQA and NEPA.

31 **Contribution of the Proposed Project (Prior to Mitigation)**

32 Expansive soil impacts in proposed Project backland areas would be less than
33 significant under CEQA, as the proposed Project would be designed and constructed in
34 compliance with the recommendations of the geotechnical engineer, consistent with
35 implementation of Sections 91.000 through 91.7016 of the Los Angeles Municipal
36 Code, and in conjunction with criteria established by LAHD and would not result in
37 substantial damage to structures or infrastructure, or expose people to substantial risk of
38 injury. Such engineering and construction would apply not only to fill created in
39 association with the Project, but also to fill placed as a result of past projects on the
40 Project site, as Project construction would occur on fill placed for such previous

1 projects. In addition, potential structural impacts to past on-site structures, as a result
2 of expansive soils, would have no impact on the proposed Project, as such structures (if
3 any) have been demolished. Therefore, the proposed Project would not result in a
4 cumulatively considerable contribution to a significant cumulative impact, under
5 CEQA and NEPA.

6 **Mitigation Measures and Residual Cumulative Impacts**

7 None are required, as the contribution of the proposed Project would be less than
8 cumulatively considerable, under CEQA and NEPA.

9 **4.2.5.6 Cumulative Impact GEO-5: Landslides or Mudflows –** 10 **No Impact**

11 **Cumulative Impact GEO-5** addresses the degree to which the proposed Project,
12 along with other cumulative projects, exposes people or property to a substantial risk
13 of landslides or mudslides.

14 Because the topography in the cumulative geographic area and the project area is flat
15 and not subject to landslides or mudflows, the project would not expose places,
16 structures, or people to substantial damage or substantial risk of harm. As there would
17 be no project-specific impact, there would be no cumulatively considerable
18 contribution to any cumulative impact.

19 **4.2.5.7 Cumulative Impact GEO-6: Unstable Soil Conditions** 20 **from Excavation, Grading or Fill – Less Than** 21 **Cumulatively Considerable**

22 **Cumulative Impact GEO-6** addresses the degree to which the proposed Project, along
23 with other cumulative projects, results in substantial damage to structures or
24 infrastructure or expose people to substantial risk of injury as a result of collapsible or
25 unstable soils.

26 Construction activities may include temporary slopes, including trenching with
27 vertical slopes. The flat nature of the topography and the minimal grading required
28 for each land site would minimize the height and size of temporary slopes. In
29 addition, the slopes would be constructed in accordance with provisions of the
30 Occupational Health and Safety Administration (OSHA).

31 **Impacts of Past, Present, and Reasonably Foreseeable Future** 32 **Projects**

33 The cumulative geographic scope is the same as the proposed Project site, because
34 the effects of unstable soil conditions are site-specific and related primarily to
35 construction techniques. Past projects on the site of the proposed Project site have
36 contributed to fill and therefore risk of unstable soil conditions. However, because
37 only past, present, and reasonably foreseeable future projects on the proposed project site

1 would contribute along with the proposed Project to a cumulative impact in this impact
2 area, and no other such projects are identified, impacts would not be cumulatively
3 significant, under both CEQA and NEPA.

4 **Contribution of the Proposed Project (Prior to Mitigation)**

5 Due to implementation of standard engineering practices regarding temporary slopes,
6 people and structures on the proposed Project site would not be exposed to substantial
7 adverse effects from the proposed Project, and impacts associated with shallow
8 groundwater would be less than significant under CEQA. Potential impacts to past on-
9 site structures and people, as a result of unstable soil conditions, would have no impact
10 on the proposed Project, as such structures (if any) have been demolished. Therefore,
11 the proposed Project would not result in a cumulatively considerable contribution to a
12 significant cumulative impact, under CEQA and NEPA.

13 **4.2.5.8 Cumulative Impact GEO-7: Destruction or Modification** 14 **of One or More Prominent Geologic or Topographic** 15 **Features – No Impact**

16 **Cumulative Impact GEO-7** addresses the degree to which the proposed Project,
17 along with other cumulative projects, results in one or more distinct and prominent
18 geologic or topographical features being destroyed, permanently covered, or
19 materially and adversely modified. Such features include hilltops, ridges, hillslopes,
20 canyons, ravines, rock outcrops, water bodies, streambeds, and wetlands.

21 Since the proposed Project area is relatively flat and paved, with no prominent geologic
22 or topographic features, proposed Project construction and operations would not result
23 in any distinct and prominent geologic or topographic features being destroyed,
24 permanently covered, or materially and adversely modified. Therefore, the proposed
25 Project would not contribute to any cumulatively significant impact and no further
26 analysis is needed.

27 **4.2.5.9 Cumulative Impact GEO-8: Permanent Loss of** 28 **Availability of Known Significant Mineral Resource –** 29 **Less Than Cumulatively Considerable**

30 **Cumulative Impact GEO-8** addresses the degree to which the proposed Project, along
31 with other cumulative projects, results in permanent loss of availability of a known
32 mineral resource that would be of future value to the region and the residents of the state.

33 The proposed Project site is located in an area where no significant aggregate mineral
34 deposits are present and where little likelihood exists for their presence. However, with
35 respect to petroleum resources, the northern portion of the proposed Project site is
36 located within the Wilmington Oil Field, the sixth largest producing oil field in the
37 state. Numerous oil wells formerly present in the proposed Project vicinity have been
38 abandoned in accordance with California Department of Conservation Division of Oil,
39 Gas, and Geothermal Resources (DOGGR) specifications.

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Impacts of Past, Present, and Reasonably Foreseeable Future Projects

There are no past, present, or reasonably foreseeable aggregate mining projects in the Port area. However, past projects have resulted in displacement of oil wells that have produced oil from the underlying Wilmington Oil Field. With increasing commercial and industrial development, oil extraction has increasingly occurred from clustered development wells, rather than the relatively widely spaced wells drilled prior to extensive Port development. Modern directional drilling techniques have allowed access to oil reserves from remote (i.e., clustered) locations; therefore, past industrial and commercial development have not substantially reduced access to oil reserves of the Wilmington Oil Field. Similarly, present and reasonably foreseeable future projects will not preclude continued development of the Wilmington Oil Field, as these project sites could be accessed from remote locations (including onshore or offshore), using directional (or slant) drilling techniques. Therefore, past, present, and reasonably foreseeable future projects would be not be cumulatively significant, under both CEQA and NEPA.

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Contribution of the Proposed Project (Prior to Mitigation)

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As discussed in Section 3.5.4.3.1, proposed Project operations would preclude oil and gas drilling from within proposed Project boundaries; however, petroleum reserves beneath the site could be accessed from remote locations using directional drilling techniques. Therefore, the proposed Project would not result in the permanent loss of availability of a known mineral resource that would be of future value to the region and the residents of the state. Because of modern oil and gas drilling techniques (i.e., directional drilling), the contribution of the Project to a loss of mineral resources is inconsequential and is not cumulatively significant. Similarly, past, present, and reasonably foreseeable projects would not contribute to a loss of mineral resources, due to modern oil and gas drilling techniques. Therefore, the proposed Project would not result in a cumulatively considerable contribution to a significant cumulative impact, under CEQA and NEPA.

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Mitigation Measures and Residual Cumulative Impacts

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None are required, as the contribution of the proposed Project to cumulative impacts would be less than considerable, under CEQA and NEPA.

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4.2.6 Ground Transportation and Circulation

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4.2.6.1 Scope of Analysis

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The transportation environmental setting for the cumulative ground transportation analysis includes those streets and intersections that would be used by both automobile and truck traffic to gain access to and from the proposed Project and past, present, and reasonably foreseeable future projects in the Port vicinity, as well as those streets that would be used by construction traffic (i.e., equipment and commuting workers). These streets include Seaside Avenue/Ocean Boulevard, Navy

1 Way, Anaheim Street, Ferry Street, Alameda Street, and Henry Ford Avenue. The
2 proposed Project would also generate auto and truck traffic on certain regional
3 highways, including I-110, I-710, and SR47.

4 For purposes of this Draft SEIS/SEIR, the evaluation of the significance of potential
5 Project impacts for cumulative conditions under CEQA and NEPA is the year 2010,
6 when project construction traffic will reach its peak. After the peak, project related
7 traffic will diminish rapidly since construction is expected to be largely complete
8 after 2010. In the operation phase, the proposed Project contributes many fewer trips.

9 The only Project-related traffic included is associated with construction activities or
10 onsite terminal operations at the site during the baseline year 2010. The Port
11 anticipates that local traffic conditions surrounding the proposed Project will increase
12 regardless of whether the proposed Project is approved. Cumulative baseline
13 conditions for this traffic analysis also include other anticipated future growth not
14 attributable to the proposed Project (i.e., traffic in a given year due to other proposed
15 local development projects, regional traffic growth, and traffic increases from Port
16 terminal throughput growth not including the proposed Project). This method ensures
17 that the growth of background traffic in future years is not improperly attributed to
18 the proposed Project.

19 Impacts were assessed by quantifying differences between future cumulative
20 conditions without and with the proposed Project for both construction activity and
21 project operations activity. Cumulative traffic conditions without the project were
22 estimated by adding traffic due to proposed local development projects, regional
23 traffic growth, and traffic increases resulting from Port terminal throughput growth.
24 This growth was derived by adjusting the year 2004 CEQA volumes by 4 percent per
25 year to the year 2010 for a total increase of 24 percent. Project related traffic for both
26 project construction traffic and project operations traffic was then added separately to
27 these derived volumes to forecast year 2010-plus-project conditions.

28 **4.2.6.2 Cumulative Impact TRANS-1: Construction Traffic –** 29 **Less than Cumulatively Considerable with Mitigation**

30 **Cumulative Impact TRANS-1** represents the potential of the proposed Project along
31 with other cumulative projects to result in a short-term, temporary increase in
32 construction truck and auto traffic.

33 **Impacts of Past, Present, and Reasonably Foreseeable Future** 34 **Projects**

35 Past construction activities resulted in short-term, temporary impacts at selected
36 roadway links, intersections, and ramps. Construction period traffic handling
37 measures were implemented to mitigate these impacts.

38 The proposed Project would be constructed between 2008 and 2010. Of the present,
39 and reasonably foreseeable future projects listed in Table 4-1, the only other project on
40 Terminal Island for which it is reasonably foreseeable that construction would occur in

1 the same time period as the proposed Project is the Evergreen Container Terminal
2 Improvements project (Berths 226-236; #7 in Table 4-1).

3 To estimate construction phase traffic for the Evergreen Container Terminal
4 Improvements project (#7 in Table 4-1), the Port estimated construction traffic levels
5 based on a number of similar construction projects at the Port. These construction
6 estimates are based on information contained in the Draft West Basin EIR
7 Transportation and Circulation section, which are in turn based on construction
8 phasing estimates, construction worker needs, truck traffic estimates by type, grading
9 quantity estimates, materials quantity estimates, and other construction quantity
10 estimates for a typical container terminal project. Average levels of traffic generated
11 by such construction activities and hours of construction operation are shown below:

- 12 • Construction Traffic
 - Auto Trips per Day: 150
 - Truck Trips per Day: 100
 - Total Daily Traffic: 250
- 13 • Hours of Construction Operation
 - Monday through Friday: 7:00 AM to 5:00 PM
 - Saturday: 8:00 AM to 5:00 PM

14 The construction worker and truck trips were assessed at all study intersections
15 during the AM and PM peak hours. Thus for the AM peak hour there would be an
16 assumed 75 inbound worker trips and 15 truck trips (150 daily truck trips divided into
17 10 hour work shift), and during the PM peak hour there would be 75 outbound
18 worker trips and 15 truck trips. These truck trips were estimated based on other
19 similar Port construction Projects.

20 The construction worker and truck trips were assessed cumulatively for the Evergreen
21 Container Terminal at study intersections during the PM peak hours. The AM peak hour
22 was not analyzed because the proposed Project would not impact AM peak hour travel,
23 due to the fact that the applicant has committed to all construction workers being onsite
24 by 7:00 AM. With workers arriving at the construction site prior to the AM peak period
25 (shift starts at 7:00 AM), they would not impact the AM peak hour. However,
26 construction workers would depart during the PM peak period (shift ends at 5:00 PM)
27 and could potentially impact the PM peak hour commute. Since the Evergreen project
28 is the only one of the related present and future projects for which construction phase
29 ground transportation impacts would overlap with the proposed Project in time and
30 space, it is the only one that needs to be considered in terms of the cumulatively
31 significant impacts of related projects. The effects of the Evergreen project, along with
32 the effects of related past projects, are included in the 2010 Adjusted CEQA Baseline
33 shown in Tables 4-2 and 4-3. As the tables show (level of service for the intersections
34 analyzed), the cumulative impact of related past, present, and reasonably foreseeable
35 future projects is not cumulatively significant.

Contribution of the Proposed Project (Prior to Mitigation)

Approximately 523 construction workers are forecast during the peak construction period (which would occur in year 2010). This peak number of workers would occur for a very brief time (one week to one month) if at all. Construction activities would occur 6 days a week, 10 hours a day from 7:00 AM to 5:00 PM on weekdays and 8:00 AM to 6:00 PM on Saturday. Although approximately 1,046 worker trips (i.e., 523 times 2) would occur during the peak construction period, due to the modified work hours, construction worker trips are not expected to impact the surrounding street network during the AM peak period from 7:00 AM to 9:00 AM. Workers would arrive at the construction site prior to the AM peak period (shift starts at 7:00 AM) and would not impact the AM peak hour. However, construction workers depart during the PM peak period (shift ends at 5:00 PM) and could potentially impact the PM peak hour commute. The volume of traffic from project construction workers is considered a significant contribution during the construction activity for the project (peaking in year 2010).

Based on the results of the construction traffic analysis (Tables 4-2 and 4-3), construction of the proposed Project in combination with past, present, and reasonably foreseeable future projects would result in a cumulatively considerable contribution to a cumulatively significant impact at the Navy Way/Seaside Avenue intersection. The final LOS at the Navy Way/Seaside Avenue intersection during PM peak hour would be C, and the proposed Project would result in an increase of 0.062 in V/C, which exceeds the 0.04 criterion (for final LOS = C) for significant impacts under TRANS-1 (see Section 3.6.4.2).

Mitigation Measures

MM TRANS-1, Outbound Construction Worker Routing, would apply. Outbound westbound construction workers from TCY 421 and TCY 408 would be directed to leave these yards by traveling northbound on Ferry Street, then access SR-47 westbound via the Ferry Street/SR-47 ramp interchange. Outbound eastbound construction workers would be directed to leave TCY 421 and TCY 408 by traveling southbound on Ferry Street, following Ferry Street as it turns into Terminal Way heading northeast, turning left on Navy Way, and then turning right at the Navy Way/Seaside Avenue intersection. With implementation of this mitigation measure, impacts from construction worker traffic would be less than significant.

In addition, **MMs 4F-1, 4F-2, 4F-4, and 4F-5** from the 1992 Deep Draft FEIS/FEIR would apply, as noted in Section 3.6.1.1. For any temporary road/lane closures associated with jack and bore crossings of pipelines at roadways, standard traffic control measures would apply, including detour signage, cones, construction area signage, and flagmen.

Residual Cumulative Impacts

With the application of mitigation measures, the construction traffic analysis (Tables 4-4 and 4-5) shows that the peak construction activity of the proposed Project in combination with past, present, and reasonably foreseeable future projects would result in less than cumulatively significant impacts to the circulation system at all

Table 4-2. Intersection Level of Service Analysis – Project Construction with Cumulative Projects and CEQA Baseline

Study Intersection ¹	2010 Adjusted CEQA Baseline				2010 Adjusted CEQA Baseline + Project Construction				Change in V/C		Significantly Impacted
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM	PM	
	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay			
1. Navy Way/Seaside Avenue	B	0.648	C	0.731	B	0.648 ²	C	0.793	0.000	0.062	Yes
2. Henry Ford Avenue/Anaheim Street	B	0.697	C	0.768	B	0.697 ²	C	0.768	0.000	0.000	No
3. Alameda Street/Anaheim Street	D	0.822	D	0.810	D	0.822 ²	D	0.829	0.000	0.019	No
4. Ferry Street/SR-47 EB on ramp ³	A	0.412	A	0.566	A	0.412 ²	B	0.644	0.000	0.078	No

Notes:

1. City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology.
2. No change since proposed Project construction would not affect AM peak hour trips per Section 4.2.6.2.

Table 4-3. Intersection Level of Service Analysis – Project Construction with Cumulative Projects and NEPA Baseline

Study Intersection ¹	2010 Adjusted NEPA Baseline				2010 Adjusted NEPA Baseline + Project Construction				Change in V/C		Significantly Impacted
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM	PM	
	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay	LOS	V/C or Delay			
1. Navy Way/Seaside Avenue	B	0.648	C	0.731	B	0.648 ²	C	0.793	0.000	0.062	Yes
2. Henry Ford Avenue/Anaheim Street	B	0.697	C	0.768	B	0.697 ²	C	0.768	0.000	0.000	No
3. Alameda Street/Anaheim Street	D	0.822	D	0.810	D	0.822 ²	D	0.829	0.000	0.019	No
4. Ferry Street/SR-47 EB on ramp	A	0.412	A	0.566	A	0.412 ²	B	0.644	0.000	0.078	No

Notes:

1. City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology.
2. No change since proposed Project construction would not affect AM peak hour trips per Section 4.2.6.2.

Table 4-4. Intersection Level of Service Analysis – Project Construction with Related Cumulative Projects with CEQA Baseline and MM TRANS-1

<i>Study Intersection¹</i>	<i>2010 Adjusted CEQA Baseline</i>				<i>2010 Adjusted CEQA Baseline + Project Construction (With MM TRANS-1)</i>				<i>Change in V/C</i>		<i>Significantly Impacted</i>
	<i>AM Peak Hour</i>		<i>PM Peak Hour</i>		<i>AM Peak Hour</i>		<i>PM Peak Hour</i>		<i>AM</i>	<i>PM</i>	
	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>			
1. Navy Way/Seaside Avenue	B	0.648	C	0.731	B	0.648 ²	C	0.767	0.000	0.036	No
3. Henry Ford Avenue/Anaheim Street	B	0.697	C	0.768	B	0.697 ²	C	0.768	0.000	0.000	No
4. Alameda Street/Anaheim Street	D	0.822	D	0.810	D	0.822 ²	D	0.829	0.000	0.019	No
2. Ferry Street/SR-47 EB on ramp	A	0.412	A	0.566	A	0.412 ²	A	0.643	0.000	0.077	No

Notes:

- City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology.
- No change since proposed Project construction would not affect AM peak hour trips per Section 4.2.6.2.

Table 4-5. Intersection Level of Service Analysis – Project Construction with Related Cumulative Projects with NEPA Baseline and MM TRANS-1

<i>Study Intersection¹</i>	<i>2010 Adjusted NEPA Baseline</i>				<i>2010 Adjusted NEPA Baseline + Project Construction (With MM TRANS-1)</i>				<i>Change in V/C</i>		<i>Significantly Impacted</i>
	<i>AM Peak Hour</i>		<i>PM Peak Hour</i>		<i>AM Peak Hour</i>		<i>PM Peak Hour</i>		<i>AM</i>	<i>PM</i>	
	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>			
1. Navy Way/Seaside Avenue	B	0.648	C	0.731	B	0.648 ²	C	0.767	0.000	0.036	No
3. Henry Ford Avenue/Anaheim Street	B	0.697	C	0.768	B	0.697 ²	C	0.768	0.000	0.000	No
4. Alameda Street/Anaheim Street	D	0.822	D	0.810	D	0.822 ²	D	0.829	0.000	0.019	No
2. Ferry Street/SR-47 EB on ramp	A	0.412	A	0.566	A	0.412 ²	A	0.643	0.000	0.077	No

Notes:

- City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology.
- No change since proposed Project construction would not affect AM peak hour trips per Section 4.2.6.2.

1 intersections, including the Navy Way/Seaside Avenue intersection. The final LOS at
2 the Navy Way/Seaside Avenue intersection during PM peak hour would remain at C;
3 the proposed Project would result in an increase of 0.036 in V/C, which is less than
4 the 0.04 criterion (for final LOS = C) for significant impacts under **Impact**
5 **TRANS-1**.

6 After application of **MM TRANS-1**, impacts due to additional demand on intersection
7 volume/capacity ratios for construction activities would be less than significant under
8 CEQA and NEPA.

9 **4.2.6.3 Cumulative Impact TRANS-2: Intersection Volume/ 10 Capacity Ratio Effects – Less Than Cumulatively 11 Considerable**

12 **Cumulative Impact TRANS-2** represents the potential of the proposed Project along
13 with other past, present, and reasonably foreseeable future projects to significantly
14 impact volume/capacity ratios, or level of service, at intersections within the
15 cumulative transportation area of analysis.

16 **Impacts of Past, Present, and Reasonably Foreseeable Future 17 Projects**

18 Past cumulative project traffic, including port growth and other local and regional
19 growth, has added daily and peak hour trips to the roadway system. Even with this
20 growth, most local intersections operate at acceptable LOS. Existing 2004 traffic
21 conditions are described in Section 3.6.2. The data in Section 3.6.2 indicate that all
22 of the existing study intersections currently operate at LOS C or better during the
23 peak hours. Thus, past projects have not created a cumulatively significant impact.
24 The effects of present and reasonably foreseeable future projects are accounted for in
25 the 2010 Adjusted CEQA Baseline data in Table 4-6 and the 2010 Adjusted NEPA
26 Baseline data in Table 4-7; as these tables show, that all of the existing study
27 intersections currently operate at LOS C or better during the peak hours, indicating
28 that there is no cumulatively significant impact from past, present, and reasonably
29 foreseeable future projects.

30 **Contribution of the Proposed Project (Prior to Mitigation)**

31 As documented in Section 3.6, the proposed Project would generate at most 40 auto
32 trips in each of the AM and PM peak hours, and at most one truck trip per day,
33 during the operation phase. This falls below the City of Los Angeles threshold for
34 analysis (43 project trips). Therefore, the proposed Project would make a less than
35 cumulatively considerable contribution to impacts on ground transportation and
36 circulation due to proposed Project operations. The addition of 40 PM peak operation
37 trips is below the threshold of 43 PM peak hour trips required by LADOT to perform
38 a traffic analysis of study area intersections for a proposed project (see LADOT
39 Policies and Procedures - Revised August 2003). Tables 4-6 and 4-7 summarize
40 cumulative intersection volume-to-capacity ratios at study area intersections for
41 project operations. Examination of Tables 4-6 and 4-7 indicates that all of the study
42

Table 4-6. Intersection Level of Service Analysis – Project Operations with Cumulative with CEQA Baseline

<i>Study Intersection¹</i>	<i>2010 Adjusted CEQA Baseline</i>				<i>2010 Adjusted CEQA Baseline + Project Operations Traffic</i>				<i>Change in V/C</i>		<i>Significantly Impacted</i>
	<i>AM Peak Hour</i>		<i>PM Peak Hour</i>		<i>AM Peak Hour</i>		<i>PM Peak Hour</i>		<i>AM</i>	<i>PM</i>	
	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>			
1. Navy Way/Seaside Avenue	B	0.648	C	0.731	B	0.656	C	0.739	0.008	0.008	No
2. Henry Ford Avenue/Anaheim Street	B	0.697	C	0.768	B	0.697	C	0.768	0.000	0.000	No
3. Alameda Street/Anaheim Street	D	0.822	D	0.810	D	0.822	D	0.810	0.000	0.000	No
4. Ferry Street/SR-47 EB on ramp	A	0.412	A	0.566	A	0.412	A	0.566	0.000	0.000	No

Note:
1. City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology.

Table 4-7. Intersection Level of Service Analysis – Project Operations with Cumulative with NEPA Baseline

<i>Study Intersection¹</i>	<i>2010 Adjusted NEPA Baseline</i>				<i>2010 Adjusted NEPA Baseline + Project Operations Traffic</i>				<i>Change in V/C</i>		<i>Significantly Impacted</i>
	<i>AM Peak Hour</i>		<i>PM Peak Hour</i>		<i>AM Peak Hour</i>		<i>PM Peak Hour</i>		<i>AM</i>	<i>PM</i>	
	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>	<i>LOS</i>	<i>V/C or Delay</i>			
1. Navy Way/Seaside Avenue	B	0.648	C	0.731	B	0.656	C	0.739	0.008	0.008	No
2. Henry Ford Avenue/Anaheim Street	B	0.697	C	0.768	B	0.697	C	0.768	0.000	0.000	No
3. Alameda Street/Anaheim Street	D	0.822	D	0.810	D	0.822	D	0.810	0.000	0.000	No
4. Ferry Street/SR-47 EB on ramp	A	0.412	A	0.566	A	0.412	A	0.566	0.000	0.000	No

Note:
1. City of Los Angeles signalized intersections were analyzed using Critical Movement Analysis (CMA) methodology.

1 intersections are forecast to operate at LOS C or better during the peak hours.
2 Therefore, the project will have no cumulatively considerable contribution to the
3 cumulative impacts on ground transportation and circulation.

4 **Mitigation Measures and Residual Cumulative Impacts**

5 No mitigation measures would be required for the proposed Project contribution
6 since the cumulative impact is less than significant. The project will not result in a
7 cumulatively considerable contribution to a significant cumulative impact.

8 Impacts due to additional demand on intersection volume/capacity ratios would be
9 less than significant under CEQA and under NEPA.

10 **4.2.6.4 Cumulative Impact TRANS-3: Public Transit Use – Less** 11 **Than Cumulatively Considerable**

12 **Cumulative Impact TRANS-3** represents the potential of the proposed Project along
13 with other cumulative projects to result in a significant increase in related public
14 transit use.

15 **Impacts of Past, Present, and Reasonably Foreseeable Future** 16 **Projects**

17 The proposed Project along with past, present, and reasonably foreseeable future
18 projects would result in negligible additional transit demand due to employees, the
19 increase in work-related trips, and increases in school and shopping related transit
20 trips. Cumulatively, all of the projects combined would not result in a significant
21 increase in demand for transit that would exceed transit supply; that is, the impacts of
22 past, present, and reasonably foreseeable future projects with respect to this impact
23 are not cumulatively significant. The local and regional transit providers (METRO,
24 DASH, Long Beach Transit, etc.) continually monitor cumulative transit demand and
25 enhance or adjust services to meet demand, based on available funding.

26 **Contribution of the Proposed Project (Prior to Mitigation)**

27 As documented in Section 3.6.4.3, the proposed Project would have minimal impacts
28 on public transit use because few if any workers associated with the proposed Project
29 are expected to use public transit to access the job site. Port terminals generate
30 extremely low transit demand for several reasons. The primary reason that Port
31 workers do not use public transit is that many terminal workers must first report to
32 union halls for dispatch before proceeding to the terminal to which they have been
33 assigned. Most workers prefer to use a personal automobile to facilitate this
34 disjointed travel pattern. Also, Port workers live throughout the southern California
35 region and do not have access to the few bus routes that serve the Port. Additionally,
36 Port workers' incomes are generally higher than similarly skilled jobs in other areas
37 and higher incomes correlate to lower transit usage. Finally, parking at the Port is
38 readily available and free, which encourages workers to drive to work. Therefore, it
39 is expected that less than five work trips would be made on public transit, which

1 could easily be accommodated by existing bus transit services and would not result in
2 a demand for transit services that would exceed the supply of such services.
3 Observations of transit usage in the area for bus routes that serve the project area
4 (MTA routes 446 and 447) revealed that the buses are currently not operating near
5 capacity and would be able to accommodate this level of increase in demand without
6 exceeding supply. Consequently, the proposed Project would have a less than
7 cumulatively considerable contribution to additional demand on local transit services.

8 **Mitigation Measures and Residual Cumulative Impacts**

9 No mitigation measures would be required for the proposed Project contribution
10 since the cumulative impact is less than significant. The project will not result in a
11 cumulatively considerable contribution to a significant cumulative impact.

12 **4.2.6.5 Cumulative Impact TRANS-4: Freeway Congestion –** 13 **Less Than Cumulatively Considerable**

14 **Cumulative Impact TRANS-4** represents the potential of the proposed Project along
15 with other cumulative projects to result in a significant increase in freeway
16 congestion.

17 **Impacts of Past, Present, and Reasonably Foreseeable Future** 18 **Projects**

19 Freeway traffic levels have continued to increase in and near the study area due to
20 development activity in San Pedro, Wilmington, Harbor City, and the southern
21 California region as a whole. Not only has local development resulted in additional
22 freeway traffic on I-110, SR-47, and I-710, but regional increases in traffic have
23 resulted in increased diversion of traffic from other congested facilities such as I-405
24 to the freeways near the project study area. Historically, traffic volumes on all
25 nearby freeways have increased over the past decade. The cumulative projects in this
26 analysis would be expected to result in significant impacts on the freeway system in
27 the future. The cumulative projects will add traffic to the freeways, some of which
28 are already operating at LOS F, which exceeds the State of California Congestion
29 Management Program (CMP) threshold for acceptable operating conditions.
30 Regional improvements are programmed through the Regional Transportation Plan
31 (RTP) and the State Transportation Improvement Program (STIP). The projects that
32 are programmed are intended to mitigate the impacts of cumulative and regional
33 traffic growth, but the extent to which they will mitigate future cumulative impacts
34 on the freeway system within the study area is unknown and therefore assumed to be
35 cumulatively significant.

36 **Contribution of the Proposed Project (Prior to Mitigation)**

37 According to the Congestion Management Plan (CMP), Traffic Impact Analysis
38 (TIA) Guidelines, a traffic impact analysis is required at the following:

- 1 • CMP arterial monitoring intersections, including freeway on-ramp or off-
2 ramp, where the Project would add 50 or more trips during either the AM or
3 PM weekday peak hours.
- 4 • CMP freeway monitoring locations where the Project would add 150 or more
5 trips during either the AM or PM weekday peak hours.

6 Per CMP guidelines, an increase of 0.02 or more in the demand-to-capacity (D/C)
7 ratio with a resulting LOS F is deemed a significant impact.

8 The closest CMP arterial monitoring station to the Project is Alameda Street/Pacific
9 Coast Highway. The Project would add less than 50 trips through this intersection,
10 and, therefore, no CMP system analysis is required at this location.

11 The closest freeway monitoring station is located at I-110 at “C”-Street and I-710 at
12 Willow Street. The results of the analysis indicate that the Project would not result in
13 more than 150 additional Project trips at either of the CMP freeway monitoring
14 locations; therefore, no CMP system analysis is required at those locations.

15 Consequently, the contribution of the proposed Project to cumulative freeway traffic
16 impacts would be less than cumulatively considerable under CEQA and NEPA.

17 **Mitigation Measures and Residual Cumulative Impacts**

18 Even through cumulative project traffic is likely to be cumulatively significant, no
19 mitigation measures would be required for the proposed Project contribution, as the
20 impact of the Project will not make a cumulatively considerable contribution to the
21 significant cumulative impact. Cumulative impacts due to additional demand on area
22 freeway roadways would be less than significant under CEQA and NEPA.

23 **4.2.6.6 Cumulative Impact TRANS-5: Traffic Delay Due to**
24 **Increase in Rail Activity – No Impact**

25 **Cumulative Impact TRANS-5** represents the potential of the proposed Project along
26 with other cumulative projects to cause an increase in rail activity, causing delay in
27 traffic.

28 The proposed Project would not cause an increase in rail traffic. All product would be
29 transported by pipeline. Because the proposed Project would not create any impact
30 with regard to TRANS-5, there is no need to describe the cumulative impacts of past,
31 present, and reasonably foreseeable future projects. The proposed Project would not
32 make a cumulatively considerable contribution to any cumulative impact.

4.2.7 Groundwater and Soils

4.2.7.1 Scope of Analysis

The geographic scope for cumulative impacts on groundwater and soils varies, depending on the impact. The geographic scope with respect to contaminated soils would be confined to the proposed Project area, as these impacts are site-specific and relate primarily to potential exposure of contaminants to on-site personnel during construction, or to on-site personnel subsequent to construction. However, the geographic scope with respect to contaminated groundwater would be the aerial extent of the semi-perched aquifer and underlying Gage Aquifer, which underlie much of the coastal area of southern Los Angeles and Long Beach.

Since the Project would result in no impact with respect to changes in potable water levels, reduction in potable groundwater capacity, and potential violation of regulatory water quality standards at an existing production well, it would result in no cumulatively considerable contribution to a cumulative impact and no determination of geographic scope is required.

The cumulative area of influence is predominantly underlain by deep, unconfined potable aquifers, with an overlying shallow, perched water-bearing zone of saline, non-potable water. Spills of petroleum products and hazardous substances, due to long-term industrial land use in the area, have resulted in contamination of some onshore soils and shallow groundwater. Most of the cumulative area of influence has been disturbed in the past, may contain buried contaminated soils, and is covered in non-permeable surfaces.

4.2.7.2 Cumulative Impact GW-1: Exposure of soils containing toxic substances and petroleum hydrocarbons – Less Than Cumulatively Considerable With Mitigation

Cumulative Impact GW-1 addresses the degree to which the proposed Project, along with other cumulative projects, results in exposing soils containing toxic substances and petroleum hydrocarbons, associated with prior operations, which would be deleterious to humans. Exposure to contaminants associated with historical uses of the Port could result in short-term effects (duration of construction) to onsite personnel and/or long-term impacts to future site occupants.

“Hazardous materials” refers to any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released. Hazardous materials that are commonly found in soil and groundwater include petroleum products, fuel additives, heavy metals, and volatile organic compounds. Depending on the type and degree of contamination that is present in soil and groundwater, any of several governmental agencies may have jurisdiction over investigation or remediation.

1 **Impacts of Past, Present, and Reasonably Foreseeable Future**
2 **Projects**

3 The cumulative geographic scope is the same as the proposed Project site, because
4 the effects of soil contamination are site-specific, in that they relate primarily to
5 potential exposure of contaminants to on-site personnel during construction, or to on-
6 site personnel or recreational users, subsequent to construction. Past projects on the
7 proposed Project site, including those discussed in Section 3.7.2.3 and summarized in
8 Table 3.7-1, have contributed to soil contamination. Therefore, impacts of past
9 projects are considered cumulatively significant, under both CEQA and NEPA.

10 **Contribution of the Proposed Project (Prior to Mitigation)**

11 As discussed in Section 3.7.2.3 and summarized in Table 3.7-1, soil and/or
12 groundwater contamination has been documented adjacent to portions of Pipeline
13 Segments 1, 2, 3, 4, and 5, as well as in the vicinity of Tank Farm Sites 1 and 2.
14 Other areas of subsurface soil and/or groundwater contamination are likely present
15 along the pipeline corridor, due to the prolonged duration of industrial land use in the
16 proposed Project area. These areas are in various stages of contaminant site
17 characterization and remediation.

18 Grading and construction (e.g., excavations for pipelines) in backland areas required
19 for the proposed Project could potentially expose construction personnel, existing
20 operations personnel, and future occupants of the site to contaminated soil. Human
21 health and safety impacts would be significant pursuant to exposure levels
22 established by the Office of Environment Health Hazard Assessment (OEHHA) of
23 the California Environmental Protection Agency (Cal/EPA). Because the
24 contribution from the proposed Project is individually significant, it would make a
25 cumulatively considerable contribution to the significant cumulative impact, under
26 CEQA and NEPA.

27 **Mitigation Measures and Residual Cumulative Impacts**

28 **MM GW-1:** Site Remediation, would apply to the proposed Project's contribution.
29 This measure, described in more detail in section 3.7.4.3.1.1, states that unless otherwise
30 authorized by the lead regulatory agency for any given site, the LAHD shall remediate
31 all contaminated soils or contamination within the excavation zones on the Project
32 site boundaries prior to or during subsurface construction activities. Remediation
33 shall occur in compliance with local, state, and federal regulations, as described in
34 Section 3.7.3, and as directed by the Los Angeles Fire Department, Cal/EPA Department
35 of Toxic Substances Control (DTSC), and/or Los Angeles Regional Water Quality
36 Control Board (LARWQCB). Contamination will be remediated to below the health
37 screening levels established by Cal/EPA and OEHHA.

38 **MM GW-2:** Soil, Slurry, and Groundwater Characterization in Areas of Known
39 Contamination, would also apply to the proposed Project's contribution. This
40 measure, described in more detail in section 3.7.4.3.1.1, requires that a sampling plan
41 be implemented to address areas of known soil contamination during grading,
42 trenching, horizontal and directional drilling (HDD), and dewatering activities.

1 In addition, **MM GW-3:** Contamination Contingency Plan, would apply to the
2 proposed Project's contribution. This measure, described in more detail in section
3 3.7.4.3.1.1, would address unknown contamination during grading, trenching, HDD,
4 and dewatering activities.

5 Implementing **MMs GW-1, GW-2, and GW-3** would reduce health and safety
6 impacts to on-site personnel in backland areas, as well as construction personnel,
7 such that residual impacts from the proposed Project would be reduced in the event
8 of toxic substance or petroleum hydrocarbon exposure. Implementing these
9 mitigation measures would reduce the contribution of the proposed Project to less
10 than cumulatively considerable.

11 **4.2.7.3 Cumulative Impact GW-2: Release of contaminants to** 12 **soils and groundwater in such concentrations that** 13 **existing local, state, or federal statutes would be** 14 **violated – Less Than Cumulatively Considerable With** 15 **Mitigation**

16 **Cumulative Impact GW-2** addresses the degree to which the proposed Project,
17 along with other cumulative projects, would result in a release of contaminants to
18 soils and groundwater in such concentrations that existing local, state, or federal
19 statutes would be violated. The major concern associated with the Project-related
20 HDD method of construction is the potential for contaminated groundwater in the
21 semi-perched aquifer to be introduced into deeper aquifers. Another concern
22 associated with the HDD method of construction is frac-outs, which could potentially
23 result in adverse impacts to the underlying groundwater.

24 **Impacts of Past, Present, and Reasonably Foreseeable Future** 25 **Projects**

26 The cumulative geographic scope with respect to cross-contamination related to soil
27 and groundwater contamination would be the aerial extent of the semi-perched aquifer
28 and underlying Gage Aquifer, which underlie much of the coastal area of southern Los
29 Angeles and Long Beach, as groundwater contamination can spread over relatively large
30 areas subsequent to construction. Past projects on the proposed Project site, as
31 discussed in Section 3.7.2.3 and summarized in Table 3.7-1, have contributed to soil
32 and groundwater contamination. These contaminated sites could contribute to cross-
33 contamination of aquifers as a result of proposed Project-related HDD. Similarly,
34 past projects that overlie the semi-perched aquifer and underlying Gage Aquifer, within
35 the coastal area of southern Los Angeles and Long Beach, have contributed to soil and
36 groundwater contamination as a result of spills of petroleum products and hazardous
37 substances. Cross-contamination of the lower Gage Aquifer may have occurred
38 locally due to existing man-made conduits, such as HDD emplaced oil pipelines or
39 poorly cemented water/oil wells. Therefore, impacts of past, present, and reasonably
40 foreseeable future projects are considered cumulatively significant, under both
41 CEQA and NEPA.

1 The cumulative geographic scope with respect to frac-outs would similarly be the
2 aerial extent of the semi-perched aquifer and underlying Gage Aquifer. Past projects
3 within this geographic scope that have included HDD may have contributed to
4 adverse groundwater quality impacts. However, water quality impacts related to frac-
5 outs are more localized (i.e., relatively close to the HDD route), short-term, and more
6 inert than those associated with soil and groundwater contamination, due to the non-
7 hazardous drilling muds used for HDD. Therefore, impacts of past, present, and
8 reasonably foreseeable future projects are considered less than cumulatively
9 significant, under both CEQA and NEPA.

10 **Contribution of the Proposed Project (Prior to Mitigation)**

11 As discussed for **Impact GW-1**, soil and groundwater contamination has been
12 documented adjacent to portions of Pipeline Segments 1, 2, 3, 4, and 5, as well as in
13 the vicinity of Tank Farm Sites 1 and 2. Other areas of subsurface soil and/or
14 groundwater contamination are likely present along the pipeline corridor, due to the
15 prolonged duration of industrial land use in the proposed Project area. These areas are
16 in various stages of contaminant site characterization and remediation. If during
17 proposed Project construction, contaminated soils or groundwater are encountered during
18 HDD operations, contamination could be spread from the shallow semi-perched aquifer
19 to the underlying Gage Aquifer. Water quality impacts would be significant as
20 contaminant concentrations may exceed existing local (LARWQCB), state, or federal
21 statutes. Because the contribution from the proposed Project is individually significant
22 prior to mitigation, it would make a cumulatively considerable contribution to the
23 significant cumulative impact, under both CEQA and NEPA.

24 With respect to frac-outs, the proposed Project's incremental effects are not potentially
25 significant when combined with the effects of the related cumulative projects, as
26 water quality impacts related to frac-outs are more localized (i.e., relatively close to the
27 HDD route), short-term, and more inert than those associated with soil and groundwater
28 contamination, due to the non-hazardous drilling muds used for HDD. Frac-outs would
29 not likely result in release of contaminants to soils and groundwater in such
30 concentrations that existing statutes would be violated. Therefore, the Project would
31 not result in a cumulatively considerable contribution to a significant cumulative
32 impact, under CEQA and NEPA.

33 **Mitigation Measures and Residual Cumulative Impacts**

34 Implementing **MM GW-4: Aquifer Cross-Contamination Prevention**, would apply
35 to the proposed Project's contribution. This measure, described in more detail in
36 section 3.7.4.3.1.1, states that additional assessment of the hydrologic conditions of
37 the semi-perched aquifer, Bellflower Aquiclude, and Gage Aquifer shall be
38 performed in areas where cross-contamination could occur as a result of HDD
39 operations. In addition, an HDD plan shall be developed and implemented to prevent
40 the introduction of contaminated groundwater from the semi-perched aquifer into
41 deeper aquifers along the HDD routes. The plan shall be developed based on the
42 results of the assessment of the hydrologic conditions. The plan may include using a
43 conductor casing during HDD through the semi-perched aquifer into the underlying
44 Bellflower Aquiclude. Use of such a conductor casing would likely be most

1 appropriate at the entry point to Pipeline Segment 3 South (as defined in Section 3.7),
2 as much of Mormon Island is underlain by Non-Aqueous Phase Liquid (NAPL).

3 Implementing **MM GW-4** would contribute in reducing groundwater quality
4 impacts, such that the contribution of the proposed Project is reduced to less than
5 cumulatively considerable.

6 **4.2.7.4 Cumulative Impact GW-3: Movement of, expansion of, 7 or increase in existing contaminants – Cumulatively 8 Considerable and Unavoidable**

9 **Cumulative Impact GW-3** addresses the degree to which the proposed Project,
10 along with other cumulative projects, changes the rate or direction of movement of
11 existing contaminants; expansion of the area affected by contaminants; or increased
12 level of groundwater contamination, which would increase the risk of harm to
13 humans. The rate or direction of contaminant movement along Pipeline Segment 3
14 South (as defined in Section 3.7) could locally change as a result of possible
15 dewatering operations during trenching at the southern end of the pipeline segment.
16 A dewatering well placed within the NAPL plume would draw the NAPL towards the
17 well, thus locally changing the direction and/or rate of movement of existing
18 contaminants. In addition, HDD operations through contaminated groundwater of
19 the semi-perched aquifer, most notably along Pipeline Segment 3 South, could result
20 in cross-contamination of the underlying Gage Aquifer.

21 **Impacts of Past, Present, and Reasonably Foreseeable Future 22 Projects**

23 The cumulative geographic scope with respect to potential movement or expansion of
24 contamination would be the aerial extent of the semi-perched aquifer and underlying
25 Gage Aquifer, which underlie much of the coastal area of southern Los Angeles and
26 Long Beach, as groundwater contamination can spread over relatively large areas as a
27 result of past spills. Past projects on the proposed Project site, as discussed in Section
28 3.7.2.3 and summarized in Table 3.7-1, have contributed to soil and groundwater
29 contamination. These contaminated sites may have contributed to movement of
30 existing groundwater contamination, as a result of Project-related dewatering wells,
31 or cross-contamination of the underlying aquifer as a result of HDD operations, as
32 discussed for **Cumulative Impact GW-2**. Similarly, past projects that overlie the
33 semi-perched aquifer and underlying Gage Aquifer, within the coastal area of southern
34 Los Angeles and Long Beach, have contributed to soil and groundwater contamination
35 as a result of spills of petroleum products and hazardous substances. Therefore,
36 impacts of past, present, and reasonably foreseeable future projects are considered
37 cumulatively significant, under both CEQA and NEPA.

38 **Contribution of the Proposed Project (Prior to Mitigation)**

39 As discussed for **Impact GW-1**, soil and groundwater contamination has been
40 documented adjacent to portions of Pipeline Segments 1, 2, 3, 4, and 5, as well as in
41 the vicinity of Tank Farm Sites 1 and 2. Other areas of subsurface soil and/or

1 groundwater contamination are likely present along the pipeline corridor, due to the
2 prolonged duration of industrial land use in the proposed Project area. These areas are
3 in various stages of contaminant site characterization and remediation. If during
4 proposed Project construction, contaminated soils or groundwater are encountered during
5 HDD operations, contamination could be spread from the shallow semi-perched aquifer
6 to the underlying Gage Aquifer.

7 Similarly, during proposed Project construction, dewatering wells may cause existing
8 contaminant plumes to migrate toward those dewatering wells. Water quality impacts
9 would be significant because Project construction could locally change the rate or
10 direction of movement of existing contaminants and would potentially expand the area
11 affected by contaminants or increase the level of groundwater contamination, such that
12 contaminant concentrations in the Gage Aquifer and dewatering well effluent may
13 exceed existing local (LARWQCB), state, or federal statutes. Because the
14 contribution from the proposed Project is individually significant prior to mitigation, it
15 will make a cumulatively considerable contribution to the significant cumulative
16 impact, under both CEQA and NEPA.

17 With respect to frac-outs, the proposed Project's incremental effects are not potentially
18 significant when combined with the effects of the related cumulative projects, as
19 water quality impacts related to frac-outs are more localized (i.e., relatively close to the
20 HDD route), short-term, and more inert than those associated with soil and groundwater
21 contamination, due to the non-hazardous drilling muds used for HDD. Incremental water
22 quality impacts would not be significant because Project construction would not likely
23 change the rate or direction of movement of existing contaminants and would not
24 potentially expand the area affected by contaminants or increase the level of
25 groundwater contamination. Therefore, the Project would not result in a
26 cumulatively considerable contribution to a significant cumulative impact, under
27 CEQA and NEPA.

28 Mitigation Measures and Residual Cumulative Impacts

29 Implementing **MM GW-2(g):** Proper Discharge of Contaminated Dewatering Effluent,
30 would apply to the proposed Project's contribution. This measure, described in more
31 detail in section 3.7.4.3.1.1, states that any project-related dewatering activities shall
32 either discharge into the sanitary sewer, under permit with the City of Los Angeles
33 Sanitation Bureau, or comply with the NPDES permit regulations and an associated
34 SWPPP regarding discharge into storm drains and/or directly into harbor waters. Such
35 permit requirements typically include on-site treatment to remove pollutants prior to
36 discharge. Alternatively, the water shall be temporarily stored onsite in holding tanks,
37 pending off-site disposal at a disposal facility approved by the LARWQCB. A NPDES-
38 mandated SWPPP shall include measures ensuring that potential pollutant-contaminated
39 waters encountered during excavation would be isolated and collected for transportation
40 to a hazardous waste treatment facility prior to their discharge into the storm drain
41 system. This measure would contribute to reducing groundwater quality impacts.
42 However, even with implementation of this NPDES-mandated effluent disposal
43 protocol, improper releases of contaminated groundwater cannot be entirely
44 eliminated and the contribution of the Project to risk of spreading contamination.
45 Therefore, impacts are cumulatively considerable and unavoidable.

1 Similarly, aquifer cross-contamination prevention measures, as outlined in **MM GW-**
 2 **4** and discussed above for **Cumulative Impact GW-2**, would contribute in reducing
 3 groundwater quality impacts. However, even with implementation of these aquifer
 4 cross-contamination prevention measures, aquifer cross-contamination cannot be
 5 entirely eliminated and the contribution of the Project to risk of spreading
 6 contamination. Therefore, impacts are cumulatively considerable and unavoidable.

7 **4.2.7.5 Cumulative Impact GW-4: Change in potable water** 8 **levels – No Impact**

9 **Cumulative Impact GW-4** addresses the degree to which the proposed Project, along
 10 with other cumulative projects, results in a change in potable water levels sufficient to:

- 11 • Reduce the ability of a water utility to use the groundwater basin for public
 12 water supplies, conjunctive use purposes, storage of imported water,
 13 summer/winter peaking, or to respond to emergencies and drought;
- 14 • Reduce yields of adjacent wells or well fields (public or private); or
- 15 • Adversely change the rate or direction of groundwater flow.

16 As described in Section 3.7, the localized groundwater withdrawal that may occur as
 17 a result of the proposed Project (during construction dewatering operations) would
 18 have no impacts on underlying potable water supplies, as withdrawals would occur
 19 from the shallower, non-potable groundwater table. The existing beneficial uses of
 20 groundwater in the Inner Harbor areas does not include municipal or domestic water
 21 supply. Also, drinking water is provided to the proposed Project area by the City of
 22 Los Angeles Department of Water and Power. Therefore, the proposed Project
 23 would have no cumulatively considerable contribution to any cumulative impact,
 24 under both CEQA and NEPA.

25 **4.2.7.6 Cumulative Impact GW-5: Reduction in potable** 26 **groundwater recharge capacity – No Impact**

27 **Cumulative Impact GW-5** represents the potential of the proposed Project, along
 28 with other cumulative projects, to result in a demonstrable and sustained reduction in
 29 potable groundwater recharge capacity. Because the significance criterion only
 30 applies to potable water and the proposed Project area is underlain by highly saline,
 31 non-potable shallow groundwater, any decrease in recharge would be inconsequential
 32 to drinking water supplies. Therefore, the proposed Project would have no
 33 contribution to any cumulative impact, under both CEQA and NEPA.

34 **4.2.7.7 Cumulative Impact GW-6: Violation of regulatory water** 35 **quality standards at an existing production well – No** 36 **Impact**

37 **Cumulative Impact GW-6** addresses the degree to which the proposed Project,
 38 along with other cumulative projects, results in violation of regulatory water quality

1 standards at an existing production well, as defined in the California Code of
2 Regulations (CCR), Title 22, Division 4, Chapter 15 and in the Safe Drinking Water
3 Act. Because no existing production wells are located in the vicinity of the proposed
4 Project site, the proposed Project would have no impact on regulatory water quality
5 standards at existing production wells. Therefore, the proposed Project would have
6 no contribution to any cumulative impact, under both CEQA and NEPA.

7 **4.2.8 Land Use**

8 **4.2.8.1 Scope of Analysis**

9 Since the proposed Project has the capacity to affect land use within the Port and
10 surrounding communities, the region of analysis for cumulative land use impacts
11 includes the San Pedro Bay Ports and also extends to adjacent areas, including the
12 communities of Wilmington and San Pedro that would be assessed in terms of their
13 compatibility with the already existing Port industrial uses.

14 **4.2.8.2 Cumulative Impact LU-1: Cumulative impacts on** 15 **existing and future land use/density designations in** 16 **Community Plans, redevelopment plans, or specific** 17 **plans – No Impact**

18 **Cumulative Impact LU-1** evaluates whether the proposed Project, along with past,
19 present, and reasonably foreseeable future projects, would be inconsistent with the
20 adopted land use/density designation in the Community Plan, redevelopment plan, or
21 specific plan for the site.

22 The proposed Project was determined to have no impact related to inconsistencies
23 with the adopted land use/density designation in any Community Plan,
24 redevelopment plan, or specific plan for the site (Section 3.8.4.3.1). Therefore, no
25 analysis of the cumulative impacts of past, present, and reasonably foreseeable future
26 projects is required. The proposed Project would not contribute to cumulative impacts
27 with respect to **Impact LU-1**, and there would be no cumulative contribution of the
28 proposed Project to this impact.

29 **4.2.8.3 Cumulative Impact LU-2: Cumulative impacts on land** 30 **use consistency with the General Plan or adopted** 31 **environmental goals and policies contained in other** 32 **applicable plans – Less than Cumulatively Considerable**

33 **Cumulative Impact LU-2** evaluates whether the proposed Project along with other
34 past, present, and reasonably foreseeable future projects is inconsistent with the
35 General Plan or adopted environmental goals or policies contained in other applicable
36 plans adopted for the purpose of avoiding or mitigating an environmental impact.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Past actions within the project vicinity have been subject to the goals and objectives delineated in the Port of Los Angeles Plan (Port Plan) and the Port Master Plan (PMP). The PMP has been certified by the Coastal Commission and all past development projects have been approved pursuant to the adopted PMP, ensuring compliance with the coastal zone management program. The City-approved Port Plan is the City's governing document that regulates the continued development and operation of the Port. Parcel zoning designations control the land use types and densities that can be constructed on a given parcel. Over the years, the Port has developed consistent with the PMP, the Port Plan, and site zoning, thereby ensuring consistency with land use/density designations to minimize impacts on surrounding areas. Similarly, existing facilities within with the project vicinity have been modified as necessary to ensure proposed land use/density designations are consistent with their respective land use plan and site zoning designations.

Construction and operation associated with present and future projects, including the Avalon Boulevard Corridor Development (#25), the Channel Deepening Project (#4), the Evergreen Improvements (#7), Berths 97-109, China Shipping Terminal Development (#15), and the Ultramar Lease Renewal Project (#12) would be modified during the project permitting and review process to ensure consistency with the Port Plan and PMP goals and policies. Therefore, past, present, and reasonably foreseeable future projects are expected to be consistent with the General Plan and adopted environmental goals and policies contained in other applicable plans adopted for the purpose of avoiding or mitigating an environmental impact, and past, present, and reasonably foreseeable future projects together do not result in a cumulatively significant impact.

Contribution of the Proposed Project (Prior to Mitigation)

As stated in the Section 3.8.4.3.1 discussion of **Impact LU-2**, the proposed Project would generally meet the objectives of the City of Los Angeles General Plan, which includes the Port Plan, as well as the San Pedro and Wilmington-Harbor City Community Plans. Specifically, the proposed Project would be consistent with those objectives encouraging the development of Port-dependent activities and aggregation of major functional and compatible land and water uses (see Table 3.8-2 for specific policies and objectives). The Port Plan designations for the Pier 400 Marine Terminal, Tank Farm Site 1, and Tank Farm Site 2 allow hazardous and non-hazardous industrial, liquid bulk, and Port-related commercial land uses. Therefore, the proposed Project Marine Terminal and tank farms would be consistent with allowed uses in the area.

Proposed Project operations would also be consistent with relevant policies contained in the San Pedro and Wilmington-Harbor City Community Plans as the proposed hazardous uses (i.e., the Marine Terminal and tanks farms) would be located at interior locations of the Port, at least 1 mile from the nearest sensitive uses in the nearby communities, and would be designed in a manner consistent with all applicable safety regulations, including the Port RMP. Therefore, the proposed Project would be consistent with both Community Plans.

1 The proposed Project would not generate population migration into the area or create
2 a demand for new housing units, as described in Section 3.15, Population and
3 Housing. As a result, it would be consistent with the Regional Comprehensive Plan
4 developed by the Southern California Association of Governments (SCAG), and with
5 SCAG's Regional Housing Needs Assessment. The proposed Project would be
6 consistent with all applicable SCAG policies and other applicable policies and plans
7 (see Table 3.8-1).

8 The individual impact of the proposed Project is less than significant and would have
9 no adverse cumulative effects on land use consistency when considered with other
10 past, present, and reasonably foreseeable future projects. Therefore, the proposed
11 Project would have a less than cumulatively considerable contribution under CEQA
12 and NEPA with regard to **Impact LU-2**.

13 **Mitigation Measures and Residual Cumulative Impacts**

14 As the proposed Project would have less than cumulatively considerable impacts on
15 land use, no mitigation measures would be required. Impacts would remain less than
16 cumulatively considerable under CEQA and NEPA.

17 **4.2.8.4 Cumulative Impact LU-3: Cumulative impacts on the** 18 **types and/or extent of existing land uses in the Project** 19 **area – Less Than Cumulatively Considerable**

20 **Cumulative Impact LU-3** evaluates whether the proposed Project, along with other past,
21 present, and reasonably foreseeable future projects would substantially affect the types
22 and/or extent of existing land uses in the Project area.

23 **Impacts of Past, Present, and Reasonably Foreseeable Future** 24 **Projects**

25 Past actions within the project vicinity have been subject to the goals and objectives
26 delineated in the Port Plan and the PMP. The PMP has been certified by the Coastal
27 Commission and all past development projects have been approved pursuant to the
28 adopted PMP, ensuring compliance with the coastal zone management program. The
29 City-approved Port Plan is the City's governing document that regulates the
30 continued development and operation of the Port. Parcel zoning designations control
31 the land use types and densities that can be constructed on a given parcel. Over the
32 years, the Port has developed consistent with the PMP, the Port Plan, and site zoning,
33 thereby ensuring consistency with land use/density designations to minimize impacts
34 on surrounding areas. Similarly, existing facilities within with the project vicinity
35 have been modified as necessary to ensure proposed land use/density designations are
36 consistent with their respective land use plan and site zoning designations.

37 Because maintaining consistency with plans is an inherent outcome of the permitting
38 process, past, present, and reasonably foreseeable future projects would not adversely
39 impact the types and/or extent of existing land uses in the Project area. Past, present,

1 and reasonably foreseeable future projects have not resulted and will not result in a
2 cumulatively significant impact.

3 **Contribution of the Proposed Project (Prior to Mitigation)**

4 Proposed Project operations would be compatible with the types of heavy industrial,
5 liquid bulk, and, to a lesser extent, container terminals in the proposed Project area.
6 Proposed Project operations would involve transport of products exclusively by pipeline
7 (once offloaded from vessels), and would not create land use conflicts. However,
8 operation of the Marine Terminal on Pier 400 Face C and Tank Farm Site 1 on Face D
9 would put new industrial uses nearer to the Least Tern Nesting Area located at the
10 southeastern tip of Pier 400. Impacts to the Least Tern Nesting Area from construction
11 and operation of the proposed Project are addressed in detail in Section 3.3 and
12 cumulative impacts are addressed in Section 4.2.3. These impacts are deemed less than
13 significant with mitigation (see Section 3.8.4.3.1).

14 **Mitigation Measures and Residual Cumulative Impacts**

15 The contribution of the proposed Project would not substantially affect the types
16 and/or extent of existing land uses in the Project area. Impacts would remain less than
17 cumulatively significant under CEQA and NEPA. Note that biological mitigation
18 measures and residual cumulative biological impacts on the Least Tern Nesting Area
19 are addressed in detail in Section 4.2.3.

20 **4.2.8.5 Cumulative Impact LU-4: Cumulative impacts on** 21 **dividing or isolating existing neighborhoods,** 22 **communities, or land uses – No Impact**

23 **Cumulative Impact LU-4** evaluates the extent to which the proposed Project along
24 with past, present, and reasonably foreseeable future projects would divide or isolate
25 neighborhoods, communities, or land uses.

26 **Impacts of Past, Present, and Reasonably Foreseeable Future** 27 **Projects**

28 Past and present projects within the project vicinity have contributed to acquisition of
29 new property by the Port and have been attributed to the encroachment of Port-
30 related industrial uses into surrounding communities. Past Port projects have
31 contributed to the use of container storage yards for storage of other equipment and
32 materials (i.e., new and used truck chassis) and related maintenance, and the location
33 of rail and highway land uses within surrounding communities. However, the past
34 and present land uses are consistent with the designated land uses in land use plans
35 governing development in the surrounding areas. In addition, development in the
36 surrounding areas has occurred in concert with past and present transportation
37 infrastructure development.

1 Construction and operation associated with present and future container terminal
2 projects, including the Pier 400 Container Terminal and Transportation Corridor
3 Project (#1), the Berth 136-147 project (#2), the Channel Deepening Project (#4), the
4 Evergreen Container Terminal Expansion (#7), the China Shipping Terminal
5 Development Project (#15), and Berth 121-131 Terminal (#29), would not result in
6 physical changes that could divide or isolate neighborhoods or communities.
7 Therefore, past, present, and reasonably foreseeable future projects would not result
8 in significant cumulative land use impacts.

9 **Contribution of the Proposed Project**

10 The proposed Project was determined to have no impact related to dividing or isolating
11 neighborhoods, communities, or land uses (Section 3.8.4.3.1). Therefore, no further
12 analysis of the cumulative impacts of past, present, and reasonably foreseeable future
13 projects is required. The proposed Project would not contribute to cumulative impacts
14 with respect to **Impact LU-4**, and there would be no cumulative contribution of the
15 project to this impact.

16 **4.2.8.6 Cumulative Impact LU-5: Cumulative impacts on** 17 **secondary impacts to surrounding land uses – No** 18 **Impact**

19 **Cumulative Impact LU-5** evaluates the extent to which the proposed Project, along
20 with other past, present, and reasonably foreseeable future projects would cause a
21 secondary impact to the surrounding land uses.

22 **Impacts of Past, Present, and Reasonably Foreseeable Future** 23 **Projects**

24 Residential property values in communities adjacent to the Port have risen in recent
25 years and do not exhibit depreciated values. As a consequence, the incremental
26 development of past and present projects has not contributed to decreased property
27 values.

28 Construction and operation associated with present and reasonably foreseeable future
29 projects, including the Pier 400 Container Terminal and Transportation Corridor
30 Project (#1), the Berth 136-147 Terminal (#2), the Channel Deepening Project (#4),
31 the Evergreen Improvements (#7), the Ultramar Lease Renewal Project (#12), the
32 China Shipping Terminal Development Project (#15), Wilmington Waterfront Master
33 Plan/Avalon Boulevard Corridor Project (#25), and the Berth 121-131 Terminal (#29),
34 would result in increased jobs. However, this increase would not significantly
35 contribute to increased or decreased property values within surrounding
36 communities. As a consequence, past, present, and reasonably foreseeable future
37 projects would not result in significant secondary cumulative impacts to surrounding
38 land uses.

Contribution of the Proposed Project

The proposed Project was determined to have no secondary land use impact on surrounding land uses (Section 3.8.4.3.1). Therefore, no further analysis of the cumulative impacts of past, present, and reasonably foreseeable future projects is required. The proposed Project would not contribute to cumulative impacts with respect to **Impact LU-5**.

4.2.9 Marine Transportation

4.2.9.1 Scope of Analysis

The proposed Project would allow a greater number of larger crude oil vessels to call at the Port. Like all commercial vessels, these ships would follow designated traffic channels (also used by other vessels) when approaching and leaving the Harbor. Similarly, in-water construction activities associated with the proposed Project would occur within the Port's existing channel limits (i.e., channel and berthing areas). Since the proposed Project has the capacity to affect vessel transportation only within these channels or the berths the vessels are accessing, the region of analysis for cumulative marine transportation impacts includes the vessel traffic channels that ships use to access berths within the Port and Main Channel, and the berths themselves.

The cumulative impacts include those impacts from past, present, and reasonably foreseeable future projects that will also increase the number and size of vessels using these shipping lanes, as well as increased use of the Port areas.

4.2.9.2 Cumulative Impact VT-1: Creation of Navigation Hazards – Less Than Cumulatively Considerable

Cumulative Impact VT-1 represents the potential of the proposed Project along with other cumulative projects to increase traffic congestion or reduce the existing level of safety for vessels navigating the Main Channel and/or precautionary areas. This includes both construction and operation phase impacts.

As reported in Section 3.9.2, vessel traffic levels are highly regulated by the U.S. Coast Guard (USCG) Captain of the Port (COTP) and the Marine Exchange of Southern California via the Marine Exchange Vessel Traffic Service (VTS) to ensure the total number of vessels transiting the Port does not exceed the design capacity of the channel limits. Mariners are required to report their position to the COTP and the VTS prior to transiting through the Port; the VTS monitors the positions of all inbound/outbound vessels within the Precautionary Area and the approach corridor traffic lanes. In the event of scheduling conflicts and/or vessel occupancy within the Port is operating at capacity, vessels are required to anchor at the anchorages outside the breakwater until mariners receive COTP authorization to initiate transit into the Port.

1 **Impacts of Past, Present, and Reasonably Foreseeable Future**
2 **Projects**

3 Past actions within the project vicinity have resulted in deepening navigation
4 channels and upgrading existing wharf infrastructure to accommodate modern
5 container ships. Incremental Port development has resulted in water-dependent
6 developments that have been necessary to accommodate the needs of foreign and
7 domestic waterborne commerce. In response to past actions, several measures have
8 been implemented to ensure the safety of vessel navigation in the harbor area.
9 Restricted navigation areas and routes have been designated to ensure safe vessel
10 navigation, and are regulated by various agencies and organizations to ensure
11 navigational safety.

12 Present and reasonably foreseeable Port projects could result in marine vessel safety
13 impacts if they introduce construction equipment to the Main Channel and/or
14 interfere with USCG designated vessel traffic lanes. In-water construction activities
15 associated with the Channel Deepening Project, Evergreen Marine Terminal
16 Expansion Project, SSA Outer Harbor Fruit Facility Relocation Project, the Ultramar
17 Berths 163-164 Lease Renewal Project, and the Berths 171-181 Pasha Marine
18 Terminal Improvements Project, as well as the Berths 136-147 Terminal Project,
19 would introduce construction equipment into the Port. The Port utilizes standard
20 safety precautions in piloting these vessels through harbor waters, and standard
21 measures including compliance with LAHD standards for construction and dredging
22 safety. USACE permit requirements would also apply. With the application of
23 standard safety precautions and requirements, there would be no cumulatively
24 significant impact from past, present, and reasonably foreseeable future projects.

25 **Contribution of the Proposed Project (Prior to Mitigation)**

26 The construction phase of the proposed Project would involve the use of construction
27 vessels and equipment to conduct wharf construction activities Pier 400. These types
28 of activities are routinely conducted in the Port and contractors performing in-water
29 construction activities are subject to applicable rules and regulations stipulated in all
30 LAHD contracts and Department of the Army permits. The Port would utilize
31 standard safety precautions in piloting these vessels through harbor waters, and
32 standard measures including compliance with LAHD standards for construction
33 safety and USACE permit requirements would also apply. Thus, the short-term
34 presence of supply barges/support boats at Berth 408 would not reduce the existing
35 level of safety for vessel navigation in the Port.

36 Long-term operation of the related projects within the Port would contribute to an
37 overall increase in vessel calls during operations that could result in cumulatively
38 considerable impacts. The proposed Project would introduce new and larger tankers
39 into the harbor which would contribute to this cumulative increase in vessel calls by
40 approximately 129 to 201 vessel calls per year. Project vessel calls associated with
41 the proposed Project and cumulative development are shown in Table 4-8. The
42 cumulative increase in combination with the increase associated with the proposed
43 Project would also contribute to the likelihood of an accident. However, the
44 proposed Project's contribution is not expected to be cumulatively considerable
45

Table 4-8. Vessel Calls at San Pedro Bay Ports

<i>Year</i>	<i>San Pedro Bay Vessel Calls</i>	<i>Proposed Project Vessel Calls</i>	<i>Project Percent of San Pedro Bay Vessel Calls</i>
2004	5,374	0	---
2010	8,073	129	1.60%
2015	10,926	147	1.35%
2025	15,278	201	1.32%
2040	24,876	201	0.81%

1 because it would not result in a discernible increase to the number of vessel calls
2 beyond what is expected from the related projects identified in Table 4-1. In
3 addition, a variety of standard procedures and precautions are in place at the Port that
4 would further reduce the proposed Project's contribution to cumulative impacts.

5 As such, related projects in the San Pedro Bay Ports would contribute to an overall
6 increase in vessel calls, larger tankers, and an increased likelihood of an accident in
7 the larger San Pedro Bay context. However, the trend toward larger container vessels
8 and the deepening of navigation channels to accommodate the larger vessels would
9 likely minimize the number of ship calls required to transport the total projected
10 cargo in the Port, thereby reducing or minimizing the potential for conflicts between
11 vessels navigating in the Project vicinity. Furthermore, ship movements in and out of
12 the two Ports are managed by the Marine Exchange of Southern California. The
13 Marine Exchange has developed the VTS to meet new federal and state vessel safety
14 regulations. The system monitors and facilitates the safe passage of all commercial
15 vessel traffic in southern California waters.

16 Given the continued use of standard practices, including adherence to Harbor Safety
17 Plan (HSP) speed limit regulations, adherence to limited visibility guidelines, VTS
18 monitoring requirements (i.e., issuance of security calls by dredge operators on the
19 VTS prior to commencement of dredge operations and transit to disposal sites), and
20 Port tariffs requiring vessels of foreign registry and U.S. vessels that do not have a
21 federally licensed pilot on board to use a Port Pilot for transit in and out of the San
22 Pedro Bay area and adjacent waterways, and Captain of the Port (COTP) scheduling
23 requirements, the projected 0.8% (in 2040) to 1.6% (in 2010) increase in annual
24 vessel calls at Berth 408 would not significantly decrease the margin of safety for
25 marine vessels within the cumulative area impacted by the proposed Project.
26 Continued implementation of COTP uniform procedures including advanced
27 notification to vessel operators, vessel traffic managers, and Port pilots identifying
28 the location of dredges, derrick barges, and any associated operational procedures
29 and/or restrictions (i.e., one-way traffic) ensure safe transit of vessels operating
30 within as well as to and from the project area. Therefore, the Project would not have
31 a cumulatively considerable contribution; considered together with other present and
32 reasonably foreseeable future projects in the area, it would result in less than
33 significant cumulative impacts on vessel transportation safety under CEQA and
34 NEPA.

Mitigation Measures and Residual Cumulative Impacts

As the proposed Project would have less than cumulatively considerable impacts on marine transportation, no mitigation measures would be required. Impacts would remain less than cumulatively significant under CEQA and NEPA.

4.2.10 Noise

Cumulative noise impacts would result if construction noise associated with another development affected the same sensitive receptors as the proposed Project during the same timeframe. Construction of certain projects at the San Pedro Bay Ports and within the Wilmington/San Pedro area (see Table 4-1) is currently expected to overlap with construction of the proposed Project and could affect the same noise-sensitive receptors identified within the project area. These projects include:

- #2: Berths 136-147 Marine Terminal, West Basin – 2008-2010
- #3: San Pedro Waterfront Project – 2010-2015
- #4: Channel Deepening Project – 2010-2013
- #5: Cabrillo Way Marina, Phase II – 2008-2009
- #6: Artificial Reef, San Pedro Breakwater – 2009-2010
- #7: Berth 226-236 (Evergreen) Container Terminal Improvements Project and Cannery Steam Demolition – 2010-2013
- #13: Westway Decommissioning – 2009
- #15: Berths 97-109, China Shipping Terminal Development Project – 2009-2015
- #21: San Pedro Waterfront Enhancements Project – 2007-2009
- #28: Berths 212-224 (YTI) Container Terminal Improvements Project – 2010-2013
- #29: Berths 121-131 (Yang Ming) Container Terminal Improvements Project – 2010-2013
- #44: Pacific Corridors Redevelopment Project, San Pedro – Present-2035
- #53: Target (Gaffey Street) – 2009
- #54: Palos Verdes Urban Village – ?-2011
- #69: Middle Harbor Terminal Redevelopment, Port of Long Beach – 2008-2025
- #70: Piers G & J Terminal Redevelopment Project, Port of Long Beach – Present-2015
- #71: Pier A West Remediation Project, Port of Long Beach – ?-2011
- #75: Administration Building Replacement Project, Port of Long Beach – 2009-2012

- #78: Gerald Desmond Bridge Replacement Project, Port of Long Beach and Caltrans/FHWA – 2008-213
- #81: Schuyler Heim Bridge Replacement and State Route (SR) 47 Terminal Island Expressway – 2009-2011

Although construction noise from individual related projects could increase ambient noise levels in the immediate vicinity of each development site during daytime hours, construction noise would be localized, and reduced to the extent feasible through compliance with the City of Los Angeles Noise Ordinance Standards. Cumulative operational noise impacts could result from combined increases in vehicular traffic, vessel traffic, and other industrial activities associated with projects in the Port vicinity.

4.2.10.1 Scope of Analysis

The geographic scope for cumulative noise impacts includes the area of Los Angeles Harbor, San Pedro, and Wilmington as indicated on Figure 3.10-1.

The discussion of cumulative noise impacts addresses both construction and operational noise levels. The *L.A. CEQA Thresholds Guide* (City of Los Angeles 2006) provides specific thresholds of significance to address potential noise impacts resulting from the construction and operation of proposed projects. A project would normally have a significant noise impact if it would result in one or more of the following:

NOI-1: Construction activities lasting more than 10 days in a 3-month period would exceed existing ambient exterior noise levels by 5 dB(A) or more at a noise-sensitive use.

NOI-2: Construction activities would exceed the ambient noise level by 5 dB(A) at a noise-sensitive use between the hours of 9:00 PM and 7:00 AM Monday through Friday, before 8:00 AM or after 6:00 PM on Saturday, or at any time on Sunday.

NOI-3: The project would cause the operational ambient noise level measured at the property line of affected uses to increase by 3 dB(A) in CNEL to or within the “normally unacceptable” or “clearly unacceptable” category, or any 5 dB(A) or greater noise increase, as defined by City thresholds, described in Table 3.10-4.

On the basis of the above criteria, cumulative noise impacts may be assessed by considering the combined effect of the proposed Project and other reasonably foreseeable projects on the ambient noise levels in the project area, considering that noise is a local phenomenon that attenuates with distance. In order for the proposed Project and other reasonably foreseeable projects to have combined impacts, they would need to be in reasonably close proximity, creating noise at the same time, and the combined noise would need to exceed ambient levels sufficiently to be detectable by the human ear. However, given the uncertainties about noise generation from other projects as well as project timing and the exact location of noise generating sources, it is not feasible to identify all potential noise sources from all potential

1 projects and accurately assess the increase in noise that could occur in any one
2 location. The following qualitative analysis considers the above criteria in the
3 context of the twenty projects that are projected to be under construction at the same
4 time as the proposed project.

5 **4.2.10.2 Cumulative Impact NOI-1: Construction Noise –** 6 **Cumulatively Considerable and Unavoidable**

7 **Cumulative Impact NOI-1** represents the potential for construction activities of the
8 proposed project along with other cumulative projects to cause a substantial increase
9 in ambient noise levels at sensitive receivers within the project area.

10 A cumulative construction noise impact would be considerable if construction
11 activities for the proposed project, in combination with one or more of the reasonably
12 foreseeable projects, would cause a substantial short-term increase in noise at a
13 sensitive receptor, and the project contribution would be cumulatively considerable.

14 **Impacts of Past, Present, and Reasonably Foreseeable Future** 15 **Projects**

16 The list of related and cumulative projects was reviewed to determine if construction
17 activities associated with any of these projects could, in combination with the
18 proposed Project, cause cumulative construction noise impacts. The twenty projects
19 listed above are expected at the present time to have construction schedules that
20 overlap for a period of time with the proposed Project. Of these projects, #3, #5, #6,
21 and #13 are nearest to the pile driving for Berth 408 that is the source of significant
22 project-specific impacts. Should construction occur at these sites at the same time as
23 construction is occurring at any other site, even without the contribution of the
24 proposed Project, a cumulatively significant effect is likely. Other projects (#4, #21,
25 #28, and #71) are nearest to pipeline construction locations for the proposed Project.
26 Pipeline construction is not expected to generate as much noise as pile driving.
27 However, if construction occurs at these locations in the same timeframe, potentially
28 considerable cumulative noise impacts could occur. Since construction is limited in
29 duration, only those projects that overlap in time could contribute to cumulatively
30 considerable construction noise impacts. Since construction noise associated with the
31 proposed project and other similar projects is likely to result in individually significant
32 impacts, the impact of past, present, and reasonably foreseeable future projects is
33 expected to be cumulatively considerable.

34 **Contribution of the Proposed Project (Prior to Mitigation)**

35 Construction, including pile driving, is proposed at the west face of Pier 400 when Berth
36 408 is constructed. Construction-related noise levels resulting from this project activity
37 are calculated to raise the ambient noise at sensitive receptors (Lighthouse Yacht
38 Landing, Berth 204, and Reservation Point; see Section 3.10.4.3.1 for details) by more
39 than 5 dB(A). Therefore, the project would have a cumulatively considerable noise
40 impact when combined with any other project that would affect these same receptor
41 locations. In addition, the project is estimated to have a greater than 1 dB(A) impact at

1 three other sensitive receptor locations where ambient measurements were made, thereby
2 also contributing to cumulatively considerable noise impacts at locations where the
3 project alone would not have significant adverse noise impacts.

4 **Mitigation Measures and Residual Cumulative Impacts**

5 Standard controls, in accordance with the 1992 Deep Draft FEIS/FEIR Mitigation
6 Measures, would be included in all construction contractor specifications to ensure
7 adherence throughout the construction period. These controls are listed in Section
8 3.10 Noise. In addition, project-specific mitigation measures described in Section
9 3.10 would also apply (**MM NOISE-1, MM NOISE-2, and MM NOISE-3**).

10 Considering the distances between the construction noise sources and receivers, the
11 standard controls and temporary noise barriers may not be sufficient to reduce the
12 projected increase in the ambient noise level to the point where it would no longer
13 cause a cumulatively considerable noise impact. Thus, even after mitigation, the
14 proposed Project would make a cumulatively considerable contribution and the
15 overall impact would be cumulatively significant.

16 Note that cumulative impacts to the least tern nesting area related to all construction
17 activities are analyzed in Section 4.2.3. At least a portion of the disturbance to the
18 nesting area from construction would be associated with noise from construction of
19 the proposed Project. However, no related projects would contribute to any
20 cumulative construction noise impacts on the least tern nesting area. Therefore, the
21 noise component of the potential construction impacts would also be less than
22 cumulatively significant.

23 **4.2.10.3 Cumulative Impact NOI-2: Nighttime Construction – No** 24 **Impact**

25 **Cumulative Impact NOI-2** represents the potential of the proposed Project along
26 with other cumulative projects to cause a substantial increase in construction noise at
27 night. No construction activities are planned to occur between the hours of 9:00 PM
28 and 7:00 AM, Monday through Friday, before 8:00 AM or after 6:00 PM on
29 Saturday, or at any time on Sunday. There would be no construction-related noise
30 impacts during prohibited hours as described above; consequently, no cumulative
31 noise impacts from nighttime construction would occur. No mitigation is required,
32 and there would be no residual impacts.

33 **4.2.10.4 Cumulative Impact NOI-3: Operational Noise Would Not** 34 **Exceed Existing Ambient Noise Levels at Sensitive** 35 **Receivers – Less than Cumulatively Considerable**

36 **Cumulative Impact NOI-3** represents the potential of the proposed Project along
37 with other cumulative projects to cause a substantial permanent increase in ambient
38 noise levels at sensitive receivers within the geographic scope of the project.

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Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Onsite operations at the Port, and roadway traffic on the roadway network along major roadways in the study area and local streets in the Wilmington and San Pedro areas, are the dominant sources of noise and noise sensitive receivers within the geographic scope of the proposed Project. Virtually all of the cumulative projects in Table 4-1, with the exception of the Portwide operational plans and programs, would contribute to existing noise sources such as traffic, terminal operations, and neighborhood sources including parks and schools. In general, the combined noise levels from adjacent project operations are likely, in some instances, to contribute to an overall increase in ambient noise levels if those operations are in sufficiently close proximity to one another. While a modeling analysis was not performed, the number and proximity of past, present, and reasonably foreseeable future projects are likely to result in noise impacts that would be cumulatively considerable.

Contribution of the Proposed Project (Prior to Mitigation)

Operational noise sources associated with the proposed Project would include the intermittent sounds of offloading crude oil at the Pier 400 Face C Marine Terminal, the shipping vessels themselves, and vehicle movements associated with employees and deliveries entering and exiting the Pier 400 and Terminal Island sites in support of proposed Project operations. The dominant sources of noise at the terminal would include transformers for the AMP system, hydraulic pumps for the loading arm (both operating continuously during unloading), capstan motors during mooring, engine noise from up to four tugs during mooring and from the vessel responsible for boom deployment and recovery prior to and following each crude oil transfer operation, and the motor to raise the gangway (all on an intermittent basis).

Noise sources at the tank farms would include the intermittent sounds associated with the storage equipment, pumps, and piping system. Pipelines would be located underground, and the only motorized equipment connected with these, outside the Terminal facilities and Tank Farm Site 2, would be valve actuators. Therefore, no operational noise would be associated with pipeline use. Furthermore, there is no tanker truck or rail activity proposed as part of this proposed Project.

In addition, the proposed Project is well removed from most sensitive receptors and would not be a large contributor to increases in traffic or other port-related activity. The crude oil would be delivered to refineries by pipeline, so no rail or truck transport would be involved. The limited traffic generated by the project would not contribute to overall traffic noise compared to many other port-related projects. Note that potential impacts to the Least Tern Nesting Area due to operational noise are assessed in the Biological Impact analysis (see Section 3.3 and Section 4.2.3).

Therefore, the proposed Project would not result in cumulatively considerable noise impacts due to operational noise.

Mitigation Measures and Residual Cumulative Impacts

None are required, as the contribution of the proposed Project would be less than cumulatively considerable under CEQA and NEPA.

4.2.11 Recreation

4.2.11.1 Scope of Analysis

The geographic region of concern for recreation is the San Pedro Bay Ports complex, surrounding residential neighborhoods, and recreation facilities, such as marinas and visitor-serving commercial establishments and parks. Proposed Project components, including development of a new Marine Terminal, tank farm sites, and pipelines, would not require removal of any existing recreational opportunities available in the San Pedro Bay Ports complex or in surrounding residential neighborhoods. Similar to the proposed Project, most of the cumulative projects in the Project vicinity (projects 1 through 29, and 36 through 47 as shown on Figure 4-1 and listed on Table 4-1) are predominantly terminal expansions and/or improvements, or traffic circulation improvements undertaken by the San Pedro Bay Ports. These actions represent expansion or intensification of existing Port-related uses and would similarly have only a minor cumulative effect on existing recreational opportunities within or around the Port.

The significance criteria used for the cumulative analysis are the same as those used for the proposed Project in Section 3.11.4. These criteria are the same for both CEQA and NEPA impact analyses.

4.2.11.2 Cumulative Impact REC-1: Cumulative substantial loss or diminished quality of recreational, educational, or visitor-oriented opportunities, facilities, or resources – Cumulatively Considerable and Unavoidable

Cumulative Impact REC-1 evaluates whether the proposed Project, along with other past, present, and reasonably foreseeable future projects, would result in a substantial loss or diminished quality of recreational, educational, or visitor-oriented opportunities, facilities, or resources.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

A number of cumulative projects from Table 4-1 would enhance recreational opportunities in the project area. Among these are the Berths 136-147 Marine Terminal (#2) (due to the Harry Bridges Buffer Area development), San Pedro Water Front Project (#3), Cabrillo Way Marina Phase II (#5), Artificial Reef, San Pedro Breakwater (#6), San Pedro Waterfront Enhancements Project (#21), Wilmington Waterfront Master Plan (#25), Inner Cabrillo Beach Water Quality Improvement

1 Program (#32), Cabrillo Marine Aquarium Expansion (#45), Temporary Little
2 League Park (#55), Renaissance Hotel (#84), D’Orsay Hotel (#85), The Pike at
3 Rainbow Harbor (#87), and Queensway Bay Master Plan (#88). Each of these
4 projects will result in improved or added recreational opportunities in the project
5 area. In general, the gradual addition of recreational and visitor serving projects to
6 the project area should have an overall beneficial cumulative impact on recreation.

7 The majority of the related projects would either not result in substantial demand for
8 recreational services in the Port or would result in additional available recreational
9 opportunities. As a consequence, past, present, and reasonably foreseeable future
10 projects would not result in a significant cumulative impact related to increased
11 demand for recreational services.

12 The proposed increase of throughput of crude oil products associated with the
13 Ultramar project (#12 in Table 4-1) would contribute to a cumulatively significant
14 impact related to the potential for oil spills to affect recreational resources in the
15 Harbor. The Ultramar Marine Terminal, which imports only refined products,
16 proposes in project #12 to increase throughput of petroleum from 7.5 to 10 million
17 bbl per year. The number of vessel calls would increase from 50 to 95.

18 **Contribution of the Proposed Project (Prior to Mitigation)**

19 The proposed Project would not contribute to the improvement to or addition of
20 recreational opportunities in the project area, as will many of the cumulative projects,
21 nor would it result in a reduction of those opportunities, except in the event of an oil
22 spill, in which case the adverse effects would be temporary. During operations, there
23 would be a less than significant increase in noise from the proposed Project’s vessels
24 and offloading activities (see Section 3.10.4.3), along with a less than significant
25 increase in vessel traffic. There would be a significant contribution to the potential
26 for small or medium oil spills (see Section 3.12.4.3 and Section 4.2.12.3). The large
27 vessels associated with crude oil deliveries would add to the potential to interfere
28 with recreational sailing vessels by creating a larger wind shadow that blocks the
29 flow of air downwind from the ship than other vessels, though this effect is also
30 considered less than significant since sailors would normally avoid sailing in close
31 proximity to large vessels (see Section 3.11.4.3). However, the proposed Project
32 could result in short term significant adverse impacts to recreational resources due to
33 temporary adverse effects on recreation as the result of a potential oil spill; this
34 represents an individually significant impact as well as a cumulatively considerable
35 contribution to cumulative impacts. In summary, the contribution of the proposed
36 Project to cumulative impacts would be cumulatively considerable under CEQA and
37 NEPA.

38 **Mitigation Measures and Residual Cumulative Impacts**

39 **MM RISK-2.1a** (Double-Hulled Vessels) and **MM RISK-2.1b** (Quick-Release
40 Couplings) would lower the risk of an accidental oil spill. However, no measures can
41 eliminate the risk entirely. Residual cumulative impacts would be cumulatively
42 considerable and unavoidable.

4.2.11.3 Cumulative Impact REC-2: Cumulative demand for recreation and park services that exceeds the available resources – Less Than Cumulatively Considerable

Cumulative Impact REC-2 evaluates whether the proposed Project, along with past, present, and reasonably foreseeable future projects, would result in a demand for recreation and park services that exceeds the available resources.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

While they provide additional or expanded recreational opportunities, the projects listed above would also likely attract more people interested in recreational activities and facilities to the area. Nevertheless, by expanding the supply of recreational opportunities, these projects also address the need for additional recreational facilities. The other non-recreational projects generally are industrial in nature and would not be expected to increase demand for recreation and park services that would exceed available resources, especially given that the projects listed above do expand the supply. As such, the cumulative impacts of past, present, and reasonably foreseeable future projects would be less than cumulatively significant.

Contribution of the Proposed Project (Prior to Mitigation)

Neither the construction nor the operation of the proposed Project would appreciably affect the demand for or supply of recreation and park services. Therefore, the impacts of the proposed Project, combined with past, present, and reasonably foreseeable future projects would be less than cumulatively considerable.

Mitigation Measures and Residual Cumulative Impacts

As cumulative impacts with respect to Cumulative Impact REC-2 are less than cumulatively considerable, no mitigation would be required and the residual cumulative impacts would be less than cumulatively considerable, as well.

4.2.12 Risk of Upset/Hazardous Materials

4.2.12.1 Scope of Analysis

The geographic scope for cumulative impacts associated with spills of hazardous materials encompasses two main areas: Pier 400 and the Main Channel in the Outer Harbor area of the Port. The importance of regional projects diminishes with distance from the Port as potential adverse impacts diminish in magnitude with distance. Thus, past, present, and reasonably foreseeable future projects that could contribute to these cumulative impacts include those projects that transport hazardous materials in the vicinity of the Port.

4.2.12.2 Cumulative Impact RISK-1: Potential for accidental releases of hazardous materials during construction – Less Than Cumulatively Considerable

Impact RISK-1, as applied to cumulative impacts, represents the potential of the proposed Project along with other cumulative projects to contribute to the risk of accidental release of hazardous materials, with resulting adverse effects on the health and safety of the general public or workers using the frequency/consequences matrix (Figure 3.12-5), during construction.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Virtually all of the projects listed in Table 4-1 and shown in Figure 4-1 would have the potential to contribute to the risk of hazardous materials during construction. Lubricants, fuels, and hydraulic fluids used in construction machinery could be spilled during normal usage or during refueling. In addition, vessels used to support in-water construction, such as tugs and barges carrying materials, would contain fuel tanks, lube oils, and hydraulic fluids that would have the potential to contribute to spills (although at a much lower magnitude than most of the vessels that traverse the Port). Present and reasonably foreseeable future projects requiring excavation or grading may potentially result in damage to underground facilities, hazardous material pipelines, electrical lines, or other cables. However, implementation of normal construction standards, including NPDES BMPs and applicable regulations and practices (similar to those required for the proposed Project and detailed in Section 3.12), would minimize the potential for an accidental release of hazardous materials or fuels during construction activities to a less than significant level. In addition, the effects of minor fluid spills that may result from construction are likely to be isolated and localized to the construction site. Therefore, cumulative impacts of related projects are considered less than significant.

Contribution of the Proposed Project (Prior to Mitigation)

Construction of the proposed Project would have the potential for accidental releases of hazardous materials. During Project construction, lubricants or fuels used for construction machinery could be spilled during normal usage or during refueling. In addition, vessels that would be used to assist with construction of the Marine Terminal, such as the pile-driving barge, barges for materials, and the tugs, as well as equipment on the barges (pile-driver, cranes, generators), would contain fuel tanks, lube oils, and hydraulic fluids. These tanks and fluids would have the potential to contribute to spills, although at a much lower magnitude than the proposed crude oil tankers that would call at Berth 408 during the operational phase. Construction of facilities and pipelines may potentially result in damage to underground facilities, hazardous material pipelines, electrical lines, or other cables.

However, implementation of normal construction standards, including NPDES BMPs and applicable regulations and practices detailed in Section 3.12, would minimize the potential for an accidental release of hazardous materials or fuels during construction activities. Maximum potential spill volumes would also be considered negligible.

1 Therefore, proposed Project construction activities would result in a less than significant
2 risk of upset due to accidental release of hazardous materials during construction. The
3 proposed Project would have a less than cumulatively considerable contribution to less
4 than significant cumulative impacts.

5 **Mitigation Measures and Residual Cumulative Impacts**

6 No mitigation is required. Residual cumulative impacts would be less than
7 significant.

8 **4.2.12.3 Cumulative Impact RISK-2: Potential for accidental** 9 **crude oil spill with frequency and severity of** 10 **consequence considered significant using the** 11 **frequency/consequences matrix – Cumulatively** 12 **Considerable and Unavoidable**

13 **Impact RISK-2**, as applied to cumulative impacts, represents the potential of the
14 proposed Project along with other cumulative projects to substantially increase the
15 probable frequency and severity of consequences to people or property as a result of a
16 potential accidental release or explosion of a hazardous substance.

17 **Impacts of Past, Present, and Reasonably Foreseeable Future** 18 **Projects**

19 Currently there are several proposed projects in the Port area that would contribute to
20 the risk of hazardous releases. Numerous facilities handle, store, or transport
21 hazardous materials within the Port, including hazardous liquid bulk cargoes such as
22 fuels or hazardous materials that are shipped inside cargo containers. The
23 transportation and handling of hazardous materials are subject to extensive federal,
24 state, and local regulations and controls.

25 The proposed Sound Energy Solutions LNG terminal (#76 in Table 4-1) would be
26 located (if constructed) within 1.5 miles (2.4 km) of the proposed Project tank farms.
27 In the absence of mitigation measures (see Section 3.12.4.3.1) and compliance with
28 applicable laws and regulations, the risk of fire, explosion, injuries, and fatalities
29 associated with the LNG facility in close proximity to the Project proposed in this
30 SEIS/SEIR would present a significant cumulative risk impact in connection with
31 initiating an accident at the tank farm facilities proposed in this SEIS/SEIR. In
32 addition, the proposed increase of throughput of crude oil products associated with
33 the Ultramar project (see project 12 in Table 4-1) would similarly present increased
34 risks when combined with the Project. The Ultramar Marine Terminal Lease
35 Renewal project proposes an increase in throughput of petroleum from 7.5 to 10
36 million bbl per year (note that the Ultramar terminal imports only refined products).
37 The number of vessel calls at the terminal would also increase from 50 to 95. The
38 Ultramar Marine Terminal currently utilizes the existing KMMP pipelines that would
39 be used by the Proposed Project (KMMP pipeline segments 6 and 7 as identified in

1 Tables 3.12-8 through 3.12-10). While these pipeline segments are currently in use,
2 the risk of an oil spill into Port waters would be considered significant.

3 **Tsunami-Related Impacts.** As discussed in Section 3.12, there is the potential for a
4 large tsunami to impact the Port. A large tsunami would likely lead to a crude oil or
5 fuel spill if a moored vessel is present. While in transit, the hazards posed to tankers
6 are insignificant, and in most cases, imperceptible. However, while docked, a tsunami
7 striking the Port could cause significant ship movement that could result in a hull
8 breach if the ship is pushed against the wharf.

9 The Port is subject to diurnal tides, meaning two high tides and two low tides during a
10 24-hour day. The average of the lowest water level during low tide periods each day is
11 typically set as a benchmark of 0 ft (0 m) and is defined as MLLW. For purposes of
12 this discussion, all proposed Project structures and land surfaces are expressed as
13 height above (or below) MLLW. The mean sea level (MSL) in the Port is +2.8 ft (0.86
14 m) above MLLW (NOAA 2005). This height reflects the arithmetic mean of hourly
15 heights observed over the National Tidal Datum Epoch (19 years) and therefore reflects
16 the mean of both high and low tides in the Port. The recently developed Port Complex
17 model described in Section 3.5.2 predicts tsunami wave heights with respect to MSL,
18 rather than MLLW, and therefore can be considered a reasonable average condition
19 under which a tsunami might occur. The Port MSL of +2.82 ft (0.86 m) must be
20 considered in comparing projected tsunami run-up (i.e., amount of wharf overtopping
21 and flooding) to proposed wharf height and topographic elevations, which are
22 measured with respect to MLLW.

23 A reasonable worst-case scenario for generation of a tsunami or seiche in the San Pedro
24 Bay Ports include the recently developed Port Complex model, which predicts tsunami
25 wave heights of 1.3 to 5.3 ft (0.4 to 1.6 m) above MSL at the proposed Project site,
26 under both earthquake and landslide scenarios. Incorporating the Port MSL of +2.82 ft
27 (0.86 m), the model predicts tsunami wave heights of 4.1 to 8.1 ft (0.8 to 2.4 m) above
28 MLLW at the proposed Project site. Because the proposed Project site elevation ranges
29 from 10 to 15 ft (3.0 to 4.6 m) above MLLW, localized tsunami-induced flooding
30 would not occur.

31 While the analysis above considers a reasonable worst-case seismic scenario based on a
32 maximum seismic event, with respect to MSL, a theoretical maximum worst-case wave
33 action from a tsunami would result if the single highest tide predicted over the next 40
34 years at the San Pedro Bay Ports was present at the time of the seismic event. The
35 single highest tide predicted over the next 40 years is 7.3 ft (2.2 m) above MLLW.
36 This condition is expected to occur less than 1 percent of the time over this 40-year
37 period. To determine the extent of potential impacts due to tsunami-induced flooding,
38 Port structural engineers have determined that Port reinforced concrete or steel
39 structures designed to meet California earthquake protocols incorporated into the
40 California State Lands Commission (CSLC) Marine Oil Terminal Engineering and
41 Maintenance Standards (MOTEMS) would be expected to survive complete
42 inundation in the event of a tsunami (personal communication, Yin, P., P.E., Senior
43 Structural Engineer, Los Angeles Harbor Department 2006). However, substantial
44 infrastructure damage and/or injury to personnel would occur as a result of complete
45 site inundation.

1 As previously discussed, there is a potential for tsunami-induced flooding under the
2 theoretical maximum worst-case scenario. However, the likelihood of a large
3 tsunami is very low during construction of the proposed Project and the overall
4 probability of this worst-case scenario is less than one in a 100,000 year period.

5 The most likely worst-case tsunami scenario was based partially on a magnitude 7.6
6 earthquake on the offshore Santa Catalina Fault. The recurrence interval for a
7 magnitude 7.5 earthquake along an offshore fault in the Southern California
8 Continental Borderland is about 10,000 years. Similarly, the recurrence interval of a
9 magnitude 7.0 earthquake is about 5,000 years and the recurrence interval of a
10 magnitude 6.0 earthquake is about 500 years. However, there is no certainty that any
11 of these earthquake events would result in a tsunami, since only about 10 percent of
12 earthquakes worldwide result in a tsunami. In addition, available evidence indicates
13 that tsunamigenic landslides would be extremely infrequent and occur less often than
14 large earthquakes. This suggests recurrence intervals for such landslide events would
15 be longer than the 10,000-year recurrence interval estimated for a magnitude 7.5
16 earthquake (Moffatt & Nichol 2007). As noted above, the probability of the worst-
17 case combination of a large tsunami and extremely high tides would be less than once
18 in a 100,000 year period.

19 Containers of hazardous substances on ships or on berths could similarly be damaged
20 as a result of a large tsunami. Such damage would result in releases of both
21 hazardous and non-hazardous cargo to the environment, adversely impacting persons
22 and/or the marine waters.

23 The owner or operators of tanker vessels are required to have an approved Tank Vessel
24 Response Plan on board and a qualified individual within the U.S. with full authority to
25 implement removal actions in the event of an oil spill incident, and to contract with the
26 spill response organizations to carry out cleanup activities in case of a spill. The
27 existing oil spill response capabilities in the San Pedro Bay Ports are sufficient to isolate
28 spills with containment booms and recover the maximum possible spill from an oil
29 tanker within the Port.

30 **Contribution of the Proposed Project (Prior to Mitigation)**

31 Operation of the proposed Marine Terminal and petroleum tank farm and pipeline
32 facilities would individually increase the level of impacts in the area of the Port,
33 because the proposed Project would increase the amount of hazardous liquids being
34 delivered and handled.

35 Assuming both the proposed Project and the Ultramar Marine Terminal Lease
36 Renewal project (Table 4-1, #12) receive the maximum number of deliveries, the
37 potential risk would remain in the same categories as the proposed Project (see the
38 risk matrix presented in Figure 3.12-8 through 3.12-11), given the broad probability
39 ranges in the risk matrix, except for single hulled vessels operating in Port waters. In
40 other words, while the cumulative risk would increase, the classification in the risk
41 matrices would remain the same. Cumulative impacts would be considered
42 significant for single hulled oil tankers, but the proposed mitigation measure would
43 reduce this impact to a less than significant level. Also, regulations establish a
44 timeline for eliminating single-hull vessels from operating in the navigable waters or

1 the EEZ of the U.S. after January 1, 2010, and double-bottom or double-sided vessels
2 by January 1, 2015.

3 To the extent that a portion of future demand for crude oil would be handled by
4 increased volume through existing San Pedro terminals, there could be an increased
5 risk of upset, compared to baseline conditions, from increased vessel traffic, crude oil
6 storage and pipeline operations. However, these increases would be almost wholly
7 associated with the proposed Project, and could potentially decrease crude oil
8 throughput at other terminals during the early stages of the project (although the
9 analysis of environmental impacts of the proposed Project does not take into account
10 such a reduction). Since the analysis of crude oil demand for the proposed Project
11 forms the basis for estimating worst-case Project and Port-wide impacts, cumulative
12 oil spill impacts would not be greater than those evaluated for the proposed Project
13 (please see Tables 3.12-5 through 3.12-11; and Figures 3.12-8 through 3.12-13).

14 The Ultramar Liquid Bulk Terminal on Mormon Island would accommodate a pig
15 launcher/receiver facility that is part of the proposed Project. The existing 36-inch
16 KMEP pipeline terminates at Ultramar Terminal; the new Pipeline Segment 3 (that is
17 part of the proposed Project analyzed in this SEIS/SEIR) starts at this terminal and
18 proceeds to other Plains pipeline systems near Henry Ford Avenue and near or on the
19 Ultramar/Valero Refinery in Wilmington. Of the pipeline segments that would be
20 used by the proposed Project, the two existing KMEP segments (segments 6 and 7 as
21 identified in Section 3.12; also identified as existing Plains pipelines in Figure 2-1)
22 have the greatest potential for a crude oil spill to reach Port waters. These pipeline
23 segments are also currently used by the Ultramar terminal. The probability of a spill
24 from these pipeline segments reaching Port waters is considered Rare, but a spill
25 would have Severe consequences, which would result in a significant impact using
26 the matrix shown in Table 3.12-5. While the proposed Project contribution to the
27 overall spill risk from KMEP pipeline segments (segments 6 and 7 as identified in
28 Section 3.12) would be small, the slight increase would exacerbate a potential,
29 cumulatively significant impact, and would be considered a cumulatively
30 considerable contribution under CEQA and NEPA.

31 In general, each Los Angeles Harbor project is subject to regulatory standards that
32 must be achieved during construction and operation. All projects individually
33 undergo rigorous safety, fire preparedness and CEQA reviews. As a result any
34 potential hazards or risks are evaluated and measures to minimize those risks are
35 implemented. Mitigation for future projects would be expected to be consistent with
36 applicable standards, regulations, and permits required to reduce potential impacts
37 from hazards and hazardous materials. Incorporation of these mitigation measures
38 into other projects would be expected to reduce cumulative impacts but probably not
39 to an extent that the cumulative impacts would be considered less than significant.
40 Therefore, the proposed Project would contribute to significant cumulative impacts
41 from hazards and hazardous materials from other projects. Incorporation of
42 mitigation measures would not reduce the Project's cumulative contribution to less
43 than cumulatively considerable. In addition, compliance with applicable federal,
44 state, and local laws and regulations governing packing, labeling, and transporting
45 and manifesting hazardous materials, along with emergency response to hazardous
46 materials spills, would minimize the potential for adverse public safety impacts
47 associated with Port projects, including the proposed Project and related projects.

1 The potential would exist for significant impact in the event of a Project-related oil
2 spill. While such an event would likely be an isolated occurrence that would not
3 happen concurrently with a spill from another project, the impacts could be
4 significant due to the proximity of Berth 408 to the Cabrillo Shallow Water Habitat
5 (1,900 ft [580 meters] away) and the Pier 400 Least Tern Habitat (2,400 ft [750
6 meters] away). A spill within the Port would impact sensitive resources and result in
7 the degradation of the habitat. Therefore, potential impacts associated with oil spills
8 resulting from a vessel accident would be significant and, therefore, cumulatively
9 considerable under CEQA and NEPA.

10 **Tsunami-Related Impacts**

11 A tsunami could also lead to an oil spill at the terminal site if a moored vessel were
12 present. While in transit, the hazards posed to crude oil tankers from tsunamis are
13 insignificant, and in most cases, imperceptible until the tsunami reaches shallow water
14 and begins to build in height (open ocean tsunamis are generally only a few meters in
15 height, but can increase to many meters when they reach shallow coastal waters).
16 However, if it occurs while a vessel is docked, a tsunami striking the port could cause
17 significant ship movement, potential loading arm failure and even a hull breach if the ship
18 is pushed against the wharf or is set adrift and strikes other objects or wharves.

19 Various estimates of tsunami run-up heights, primarily from distant sources, have been
20 developed for the proposed Project area. Synolakis (2003) estimated a 100-year run-up
21 height of 8 ft and a 500-year run-up height of 15 ft for the Port area. More recently,
22 Borrero et al. (2005) estimated that a tsunami of approximately 13 ft could occur as the
23 result of a large, submarine landslide located 10 miles southwest of the Port. Run-up
24 heights within the port vary widely, depending on wharf orientation and exposure, but are
25 generally less than the heights noted above.

26 A report prepared by the firm of Moffatt and Nichol (2007), for the Port of Long Beach,
27 studied historical and future tsunami risk at the port (see Appendix M). Historical
28 tsunamis have mainly resulted from distant earthquakes (e.g., Alaska, Chile, etc.) with
29 modest water level changes experienced in the Port. While there is some potential for a
30 tsunami-related crude oil spill, tsunamis created by distant seismic events offer sufficient
31 warning time to allow a crude oil carrier to leave the port for deeper water.

32 Moffatt and Nichol (2007) also evaluated the potential for locally generated tsunamis in
33 the Southern California Continental Borderland (SCCB) resulting from seismicity and
34 subsea landslides. A tsunami generated in the SCCB would have the potential to create
35 substantially larger water level fluctuations than a distant tsunamigenic source, and would
36 arrive with very little warning (generally less than 30 minutes). A modeling analysis
37 prepared for the San Pedro Bay Ports shows that a landslide- or earthquake-related
38 tsunami would have the potential to overtop certain wharves, including the proposed Pier
39 400 terminal site. See Section 3.5, Geology, for additional information.

40 The shoreline structures and unloading equipment are designed to operate within a range
41 of motion that includes the 8-ft extreme tidal range in the Port plus the vessel's change in
42 draft as a result of unloading. Therefore, a smaller moderate tsunami would have little
43 effect on a ship at berth. However, a large tsunami (on the order of the 500 year, 15 ft
44 event) would likely damage the loading arms and potentially the ship.

1 The Energy Information Administration (EIA) (2005) reported impacts to marine
2 terminal facilities associated with the December 24, 2004 Sumatra M_w 9.3
3 earthquake and subsequent tsunami. Indonesia's PT Arun LNG facility in Banda
4 Aceh, Sumatra, was not damaged by the tsunami even though the maximum runup
5 height observed at Banda Aceh was approximately 30 ft. An oil transfer facility
6 approximately 30 miles to the east of Banda Aceh received relatively minor damage,
7 with only one crude oil storage tank being moved off its foundation by the estimated
8 16-ft waves. An oil tanker was unloading when the tsunami struck, but the crew was
9 able to move the ship offshore (the EIA report did not comment if there was an oil
10 spill).

11 Loading arm failure frequencies for the proposed Project were estimated based on the
12 probability of the various loading arm components, as well as external stresses (e.g.,
13 wind, tides, tsunami, mooring failures, etc.) that could cause a loading arm failure. The
14 probability of a small spill was estimated to be 0.22 percent chance per year, or about
15 once every 450 years. A large failure, which would also require a failure of all
16 emergency systems and procedures, was estimated to be 0.0061 percent chance per year,
17 or once every 16,500 years. Using the Risk Matrix in Figure 3.12-10, the small spill
18 would be considered Unlikely/Minor, while the large spill would be considered
19 Rare/Major. In light of the applicant-proposed spill containment procedures, both of
20 these spill scenarios would be less than significant.

21 **Mitigation Measures and Residual Cumulative Impacts**

22 **MM RISK-2.1a** and **MM RISK-2.1b** (described in Section 3.12) would apply. The
23 residual cumulative impacts associated with oil spills resulting from a vessel accident
24 or pipeline leak would be significant and unavoidable, due to the proximity of the
25 Cabrillo Shallow Water Habitat and the Pier 400 Least Tern Habitat and the potential
26 for a spill to impact sensitive resources and result in the degradation of the habitat.
27 Residual impacts would be cumulatively considerable and unavoidable under CEQA
28 and NEPA.

29 **4.2.12.4 Cumulative Impact RISK-3: Potential for accidental** 30 **release and subsequent fire or explosion that would** 31 **adversely affect residents or businesses using the** 32 **frequency/consequences matrix – Less Than** 33 **Cumulatively Considerable**

34 **Impact RISK-3**, as applied to cumulative impacts, represents the potential of the
35 proposed Project along with other cumulative projects to substantially increase the
36 probable frequency and severity of consequences to people from exposure to health
37 hazards. In the case of the proposed project, one of the biggest public safety hazards
38 is associated with potential injuries and fatalities that could result from a crude oil
39 spill and fire.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

All present and reasonably foreseeable projects which would involve the handling of hazardous materials would be subject to the same BMPs as the proposed Project and would be constructed in accordance with the Los Angeles Municipal Code (Chapter 5, Section 57, Division 4 and 5; Chapter 6, Article 4). Quantities of hazardous materials that exceed the thresholds provided in Chapter 6.95 of the California Health and Safety Code would be subject to a Release Response Plan (RRP) and a Hazardous Materials Inventory (HMI). Implementation of increased inventory accountability and spill prevention controls associated with this RRP and HMI, such as limiting the types of materials stored and size of packages containing hazardous materials, would limit both the frequency and severity of potential releases of hazardous materials, thus minimizing potential health hazards and/or contamination of soil or water during construction/demolition activities. These measures reduce the frequency and consequences of spills by requiring proper packaging for the material being shipped, limits on package size, and thus potential spill size, as well as proper response measures for the materials being handled. Implementation of these preventative measures would minimize the potential for spills to impact members of the public and limit the adverse impacts of contamination to a relatively small area. With implementation of standard control measures, the effects of related projects would not constitute a cumulatively significant impact.

Contribution of the Proposed Project (Prior to Mitigation)

As explained in Section 3.12, construction activities at Berth 408 would not substantially increase the probable frequency and severity of consequences to people from exposure to health hazards. Because the proposed Project's incremental impact would not be significant, and because the construction phase impacts of past, present and reasonably foreseeable future projects are expected to be short-term and localized, the incremental effect from handling hazardous materials at the proposed Project construction would not be significant.

Because the probabilities of a project-related spill and subsequent fire from the proposed Project pipelines are low (Rare or Extraordinary) and spill-and-fire event consequences would either be Minor or Major for all pipelines (see Risk Matrix in Figure 3.12-12), risks from oil spill and subsequent fires from the proposed Project pipelines would have less than significant public safety impacts. The population density in the vicinity of Tank Farm Site 1 would be quite low with limited public or worker exposure potential and only few minor injuries possible, which is considered a Minor consequence. The impacts from releases from the proposed Project tanks accompanied by a fire would result in less than significant public safety impacts for Tank Farm Site 1. As noted in the Port Risk Management Analysis for the proposed Project, the hazard footprints generated as a result of the proposed Project do not result in the long-term overlap of any existing, planned, or permitted vulnerable resources. Given the small area that would be affected by a project-related spill and fire, and the fact that there would be no overlap with other cumulative projects, the incremental effect of the proposed Project on the probable frequency and severity of consequences to people from to spills of hazardous materials would be less than cumulatively considerable.

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Mitigation Measures and Residual Cumulative Impacts

None required. The residual contribution of the proposed Project would be less than cumulatively considerable.

4.2.12.5 Cumulative Impact RISK-4: Interference with an existing emergency response or evacuation plan – No Impact

Impact RISK-4, as applied to cumulative impacts, represents the potential of the proposed Project along with other cumulative projects to substantially interfere with an existing emergency response or evacuation plan, thereby increasing risk of injury or death.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Virtually all of the proposed cumulative projects that would have any impact on emergency response or evacuation plans would be subject to approval by the LAHD, the Port of Long Beach, City of Los Angeles, and would be subject to the conditional approval of these agencies. Therefore, it is not anticipated that any of these projects would be approved if there were the potential to impact applicable emergency response or evacuation plans. Therefore, potential cumulative impacts are considered less than significant.

Contribution of the Proposed Project (Prior to Mitigation)

The proposed Project would be subject to emergency response and evacuation systems implemented by the LAFD. During Project activities, the LAFD would require that adequate vehicular access be provided and maintained. The LAFD would review all plans (see Los Angeles Municipal Code requirements described above), prior to development to ensure that applicable access is maintained, and the construction contractor would be required to ensure compliance with these measures. The project emergency response plan would be incorporated into the overall response plan for the port prior to project operations. Given the location of the proposed Project on the far end of Pier 400, the proposed Project would not impact existing evacuation routes or response plans. Therefore, no significant impact on emergency response plans or emergency evacuation plans would occur. Therefore, the proposed Project would not considerably contribute to cumulative impacts.

Mitigation Measures and Residual Cumulative Impacts

None are required, as the proposed Project would not contribute to cumulative impacts would be under CEQA and NEPA.

4.2.12.6 Cumulative Impact RISK-5: Terrorist Attack – Cumulatively Considerable and Unavoidable

Impact RISK-5 as applied to cumulative impacts represents the risk that a potential terrorist attack would result in adverse consequences to areas near the proposed Project site.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Potential impacts due to terrorism are characteristic of the entire Los Angeles and Long Beach (LA/LB) metropolitan area. Terrorism risk can be based on simple population-based metrics (i.e., population density) or event-based models (i.e., specific attack scenarios). Willis et al (2005) evaluated the relative merits and deficiencies of these two approaches to estimating terrorism risk, and outlined hybrid approaches of these methods. Overall, the results of the terrorism risk analysis characterized the LA/LB metropolitan area as one of the highest-risk regions in the country. Using population metrics, the LA/LB region was ranked either first or second in the country, while the event-based model dropped the LA/LB region to the fifth ranked metropolitan area, mainly due to the relative lack of attractive, high profile targets (i.e., national landmarks or high profile, densely populated buildings). Using various approaches and metrics, the LA/LB region represented between 4 and 11 percent of the U.S. terrorism risk.

Historical experience provides little guidance in estimating the probability of a terrorist attack on an oil tanker or onshore terminal facility. Sinking a cargo ship in order to block a strategic lane of commerce actually presents a relatively low risk, in large part because the targeting of such attacks is inconsistent with the primary motivation for most terrorist groups (i.e., achieving maximum public attention through inflicted loss of life). Sinking of a ship would likely cause greater environmental damage due to spilled fuel, but this is generally not a goal of terrorist groups.

However, at the national level, potential terrorist targets are plentiful, including those having national significance, those with a large concentration of the public (e.g., major sporting events, mass transit, skyscrapers, etc.), or critical infrastructure facilities. Currently, the United States has over 500 chemical facilities operating near large populations. U.S. waterways also transport over 100,000 annual shipments of hazardous marine cargo, including LPG, ammonia, and other volatile chemicals. All of these substances pose hazards that far exceed those associated with a container terminal.

Currently, the San Pedro Bay Ports handle approximately 37 percent of the national cargo container throughput along with other commodities such as crude oil analyzed in the proposed Project. Nationally, cargo throughput is expected to double by 2020 (USDOT, 2005), while San Pedro Bay throughput is expected to more than triple during the same period (Parsons, 2006). While cumulative container and other commodity throughput would continue to grow in importance on a national level, the San Pedro Bay Ports already represent a substantial fraction of national container

1 terminal throughput, and by default, an attractive economic terrorist target. Given the
2 relative importance of the San Pedro Bay Ports under baseline conditions, the
3 addition of a marine oil terminal facility would not be expected to materially change
4 the relative importance as a potential terrorist target.

5 Because there are no measurable and/or definitive links between crude oil throughput
6 and the probability of a terrorist attack, because there are no measurable and/or
7 definitive links between container throughput and the consequences of a terrorist
8 attack, and because many factors other than container throughput would be the likely
9 or primary motivations that would dictate the probability and consequences of a
10 terrorist attack, the throughput increases at the Port associated with the related
11 projects would not result in a significant cumulative impact related an increased
12 probability of a terrorist attack.

13 **Contribution of the Proposed Project (Prior to Mitigation)**

14 As described in Section 3.12, the proposed Project would not result in a significant
15 project-level impact related to an increase in the probability of a terrorist attack
16 because the likelihood of such an event would not be based on Project-related
17 throughput, but rather would be based on the intent of the terrorist and his/her desired
18 outcome. However, potential impacts related to terrorism risk (for the proposed Project
19 alone) would be considered significant given the potential environmental impacts (oil
20 spills). Based on this, the proposed Project would result in a cumulatively
21 considerable contribution.

22 **Mitigation Measures and Residual Cumulative Impacts**

23 A variety of programs are in place at the Port to reduce potential terrorist threats, as
24 discussed in Section 3.12. In addition, **MM 4I-7** from the Deep Draft FEIS/FEIR
25 requires that the Port Police provide adequate security coverage of the proposed
26 Project area. For the proposed Project this would include vehicle barriers, site control
27 and regular patrols. However, even with the application of all possible mitigation
28 measures, the potential residual contribution from the proposed Project related to
29 terrorism risk would be considered cumulatively considerable given the
30 environmental and public safety consequences associated with a successful terrorist
31 attack.

32 **4.2.13 Utilities and Public Services**

33 **4.2.13.1 Scope of Analysis**

34 Cumulative impacts on utilities and public services can result from the combined
35 demand of the proposed Project along with past, present, and future related projects
36 on any of the utilities and public services on which the proposed Project may have
37 impacts (i.e., police and fire protection, water supply, landfill and wastewater
38 treatment capacities, and energy). The geographic scope depends on the service area
39 of the individual public service or utility provider and the jurisdiction over which

1 increased demand for services from the proposed Project could reduce the availability
 2 of such services. For the Port Police, this area is localized to the San Pedro Bay Ports
 3 and neighboring Harbor Area communities, such as Wilmington. The service area of
 4 the LAPD and LAFD encompasses the City of Los Angeles; however, the police and
 5 fire stations identified as serving the proposed Project serve only the Port and harbor
 6 area. Direct impacts of the proposed Project would be localized to the Port area, and
 7 indirect impacts could extend further within the City. For stormwater, the geographic
 8 scope is the immediately adjacent lands within the Harbor's subwatershed because
 9 this represents the drainage area that would be influenced by the proposed Project.
 10 The service area of the Bureau of Sanitation (wastewater), Los Angeles County
 11 Sanitation Districts and Browning Ferris Industries (BFI) (solid waste), and Los
 12 Angeles Department of Water and Power (LADWP) (water and electricity)
 13 encompasses the City of Los Angeles. The Southern California Gas Company (SCG)
 14 (natural gas) serves most of central and southern California.

15 **4.2.13.2 Cumulative Impact PS-1: Cumulative Impacts on Police** 16 **Protection Services and Infrastructure – Less than** 17 **Cumulatively Considerable**

18 **Cumulative Impact PS-1** represents the potential of the proposed Project along with
 19 other cumulative projects to increase the demand for additional law enforcement
 20 officers and/or facility such that the USCG, LAPD or Port Police would not be able
 21 to maintain an adequate level of service without additional facilities.

22 **Impacts of Past, Present, and Reasonably Foreseeable Future** 23 **Projects**

24 The LAPD is not the primary police service provider in the Port area and primarily
 25 provides support to the Port Police under special circumstances (as described in
 26 Section 3.13.2.1.2); therefore, cumulative Port development would only directly
 27 impact the Port Police. Construction and operation of past projects has created an
 28 existing demand for police protection that is adequately accommodated by the Port
 29 Police and LAPD. The Port Police has continuously increased staffing levels in
 30 conjunction with past Port development in order to maintain adequate service levels
 31 (personal communication, Cheryl Provinchain, 2007). Many of the present and
 32 reasonably foreseeable future cumulative projects described in Table 4-1 involve the
 33 relocation of existing facilities within the Port and vicinity or do not otherwise
 34 involve expansion of facilities; therefore, these would not result in an increase in
 35 public resources. However, several of the projects would utilize or increase the
 36 demand for local police services by increasing the amount of Port land used for
 37 operations. Specifically, the Pier 400 Container Terminal and Transportation
 38 Corridor Project (#1), Evergreen Improvements Project (#7), Berths 121-131 Yang
 39 Ming Container Terminal (#29), Middle Harbor Terminal Redevelopment (Port of
 40 Long Beach) (#69), Berths 97-109 China Shipping Terminal Development Project
 41 (#15), Berths 171-181 Pasha Marine Terminal Improvements (#16), and Berths 302-
 42 305 APL Container Terminal (#23) would generate increased on-land terminal
 43 operations. However, similar to the proposed Project, these projects would be
 44 required to implement Maritime Transportation Security Act (MTSA) mandated
 45 security features, including terminal security personnel, gated entrances, perimeter

1 fencing, terminal and backlands lighting, and camera systems, that would reduce the
2 demand for law enforcement personnel. Additionally, the Port Police would continue
3 to increase staffing in conjunction with future development in order to ensure that
4 adequate service would be provided to all future project sites (personal
5 communication, Cheryl Provinchain, 2007).

6 The USCG determines response times based on the distance that is required to travel to
7 the various Port facilities. Development due to the proposed Project and other reasonably
8 foreseeable projects would not affect USCG response times as these projects would be
9 located within the same operating distance of other facilities within the jurisdiction of
10 Sector Los Angeles and Long Beach; therefore, response times would not increase.

11 Law enforcement services have developed over time in concert with surrounding
12 development needs, and because of this, past, present, and reasonably foreseeable
13 future projects would not result in significant cumulative impacts related to the
14 demand for law enforcement.

15 **Contribution of the Proposed Project (Prior to Mitigation)**

16 The proposed Project would not substantially increase the demand for police
17 protection services. MTSA mandated security features, including terminal security
18 personnel, gated entrances, perimeter fencing, terminal lighting, and camera systems,
19 would be implemented at the proposed Project site and would reduce the demand for
20 law enforcement personnel. Proposed Project development of 53.2 acres of terminal
21 lands would require less than one (i.e., 0.06) new Port Police officer, which is a
22 negligible contribution to cumulative demands. Additionally, as described in Section
23 3.13, the proposed Project would not diminish the resources or response times
24 provided by the USCG. Therefore, the proposed Project would have no adverse
25 effects on police protection or USCG services. Since the cumulative impact is less
26 than significant, the project would not result in a cumulatively considerable
27 contribution to a significant cumulative impact.

28 **Mitigation Measures and Residual Cumulative Impacts**

29 As the proposed Project would have less than cumulatively considerable impacts on
30 police protection, no mitigation measures would be required. Impacts would remain
31 less than cumulatively considerable under CEQA and NEPA.

32 **4.2.13.3 Cumulative Impact PS-2: Cumulative Impacts on Fire** 33 **Protection Services and Infrastructure – Less than** 34 **Cumulatively Considerable**

35 **Cumulative Impact PS-2** represents the potential of the proposed Project along with
36 other cumulative projects to require the addition of a new fire station, or the
37 expansion, consolidation, or relocation of an existing facility, to maintain service.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Construction and operation of past projects has created an existing demand for fire protection that can be accommodated by the LAFD as emergency response times to the Port area are considered adequate (personal communication, A. Angulo, 2004). Many of the present and reasonably foreseeable future cumulative projects described in Table 4-1 involve the relocation of existing facilities within the Port and vicinity or do not otherwise involve expansion of facilities; therefore, these would not result in an increased demand on fire protection. As described under **Impact PS-2** in Section 3.13.4.3.1, LAFD emergency response times would only be affected by land use changes, removal of fire protection infrastructure, and removal of site access routes; intensification of existing uses would not affect response times (personal communication, F. Comfort, 2007). Several of the projects would increase the demand for local fire protection services by increasing the amount of Port land used for operations. Specifically, the Pier 400 Container Terminal and Transportation Corridor Project (#1), Evergreen Improvements Project (#7), Berths 121-131 Yang Ming Container Terminal (#29), Middle Harbor Terminal Redevelopment (Port of Long Beach) (#69), Berths 97-109 China Shipping Terminal Development Project (#15), Berths 171-181 Pasha Marine Terminal Improvements (#16), and Berths 302-305 APL Container Terminal Expansion (#23) would generate increased on-land terminal operations. However, these projects would be designed and constructed to meet all applicable state and local codes and ordinances to ensure adequate fire protection, which would be subject to LAFD review and approval. These codes and ordinances would include measures such as requiring fire protection infrastructure (i.e., fire hydrants and sprinklers) and ensuring that the LAFD is given the opportunity to review and approve any changes in site access. Furthermore, fire stations in the area are generally distributed to facilitate quick emergency response throughout the project area. As a consequence, past, present, and reasonably foreseeable future projects would not result in significant cumulative impacts to fire protection services.

Contribution of the Proposed Project (Prior to Mitigation)

The proposed Project would not substantially increase the demand for fire protection services. As described under **Impact PS-2** in Section 3.13.4.3.1, the proposed Project would be designed and constructed to meet all applicable state and local codes and ordinances to ensure adequate fire protection, which would be subject to LAFD review and approval. In addition, emergency response times would not increase because the existing land use would not change, existing fire lanes and hydrants would not be removed (i.e., they would only be relocated or expanded), and any site access alterations would be reviewed and approved by the LAFD (personal communication, F. Comfort, 2007). As fire protection features would be incorporated into the proposed Project site and emergency response times would not increase, the proposed Project would have no adverse effects on fire protection services. Since the cumulative impact is less than significant, the project would not result in a cumulatively considerable contribution to a significant cumulative impact.

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Mitigation Measures and Residual Cumulative Impacts

As the proposed Project would have less than cumulatively considerable impacts on fire protection, no mitigation measures would be required. Impacts would remain less than cumulatively considerable under CEQA and NEPA.

4.2.13.4 Cumulative Impact PS-3: Cumulative Impacts on Water, Wastewater, or Storm Drain Utility Lines – Less Than Cumulatively Considerable

Cumulative Impact PS-3 represents the potential of the proposed Project along with other cumulative projects to create a substantial increase in utility demands that would result in the construction and/or expansion of water, wastewater, or storm drain lines in order to support new development.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Construction and operation of past projects has created a demand for storm drain, water, and wastewater line infrastructure that is currently accommodated by existing utility lines. Storm drains within the Port area are maintained by the LAHD and have sufficient capacity to accommodate current demands (personal communication, D. Walsh, 2002). The LADWP has a built capacity to ensure adequate accommodation of increased future growth and demand through at least 2015 and has prepared the Urban Water Management Plan to plan for overall water supply reliability in the service area through 2030, and the existing water infrastructure demands can be accommodated (personal communication, A. Bautista, 2007). In addition, because the UWMP addresses water supply for the City of Los Angeles, and because the Port of Los Angeles is a part of the City, the UWMP accounts for water usage within the Port, including all past, present and reasonably foreseeable future Port projects (LADWP 2005). Furthermore, the California Urban Water Management Planning Act requires water suppliers to develop water management plans every 5 years. Because of this, the LADWP would continue to project future water demands and supply through new UWMPs every 5 years. Although the planning horizon for the existing UWMP includes 2030, future UWMPs will cover the 2045 horizon, which will include water supply planning for the City in 2045 and beyond. Because of the LADWP will continue to the plan and provide water supply for its customers, the past, present, and reasonably foreseeable future projects would not result in a significant cumulative impacts on the provision of water.

The TITP is currently operating at 54 percent of its capacity of 30 million gallons per day and is therefore able to adequately accommodate current wastewater generations that are a result of past projects. The City projects that by 2020, wastewater flows in the TITP service area will grow to 19.9 mgd (City of Los Angeles, 2006); therefore, approximately 10 mgd in daily capacity at TITP would remain unused and available for future years (beyond 2020). Wastewater from the related projects would not significantly affect existing or future capacity at TITP due to the substantial remaining capacity at TITP beyond 2020, which, based on the wastewater flow

1 growth rate projected between 2006 and 2020, is estimated to adequately handle 2045
2 wastewater flow demands. Consequently, the past, present, and reasonably
3 foreseeable future projects would not result in a significant cumulative impacts to
4 wastewater treatment capacity.

5 Many of the projects identified in Table 4-1 involve relocation of existing facilities
6 within the Port and vicinity, and generally do not require any expansion of facilities.
7 Therefore, it is expected that storm water runoff, water consumption, and wastewater
8 generation would remain similar to current levels. However, several of the projects
9 involve new or expanded land uses or throughput operations that may result in
10 additional demands on utilities and service systems. These projects include the Pier
11 400 Container Terminal and Transportation Corridor Project (#1), Evergreen
12 Improvements Project (#7), Berths 121-131 Yang Ming Container Terminal (#29),
13 Middle Harbor Terminal Redevelopment (Port of Long Beach) (#69), Berths 97-109
14 China Shipping Terminal Development Project (#15), Berths 171-181 Pasha Marine
15 Terminal Improvements (#16), Berths 302-305 APL Container Terminal Expansion
16 (#23), Ponte Vista (#66) and Dana Strand (#60). The related projects would likely
17 require construction or installation of water, wastewater, and storm drains utility
18 systems on their respective sites, and may have to connect with nearby supply utility
19 lines (usually in streets and other public right-of-ways). Because the utilities have
20 adequate capacity, past, present, and reasonably foreseeable future projects would not
21 result in significant cumulative impacts to utilities.

22 **Contribution of the Proposed Project (Prior to Mitigation)**

23 The proposed Project would result in minimal increased water demands, wastewater
24 generations, and storm runoff that would not exceed the capacity of existing
25 facilities; however, construction and expansion of onsite water, wastewater, and
26 storm drain lines would be required to support new terminal development. All
27 infrastructure improvements and connections within City streets would comply with
28 the City's municipal code, and be performed under permit by the City Bureau of
29 Engineering and/or LADWP. Additionally, the LAHD would prepare a Public
30 Services Relocation Plan as part of the proposed Project to address the public utilities
31 that would be affected by proposed Project construction. The Plan would ensure that
32 only minor service interruptions occur and that all pipeline installations would occur
33 within existing utility corridors/easements. The proposed Project impact on utility
34 pipeline construction would be less than significant. Since the cumulative impact is
35 less than significant, the project would not result in a cumulatively considerable
36 contribution to a significant cumulative impact.

37 **Mitigation Measures and Residual Cumulative Impacts**

38 As the proposed Project would have less than cumulatively considerable impacts on
39 utility line construction and/or expansion, no mitigation measures would be required.
40 Impacts would remain less than cumulatively considerable under CEQA and NEPA.

1 **4.2.13.5 Cumulative Impact PS-4: Cumulative Impacts on Water,**
2 **Wastewater, and Solid Waste Facility Capacities – Less**
3 **than Cumulatively Considerable with Mitigation**

4 **Cumulative Impact PS-4** represents the potential of the proposed Project along with
5 other cumulative projects to generate substantial solid waste, water, and/or
6 wastewater demands that would exceed the capacity of existing facilities.

7 **Impacts of Past, Present, and Reasonably Foreseeable Future**
8 **Projects**

9 Construction and operation of past projects has resulted in existing demands for
10 water and generations of wastewater and solid waste. These demands and
11 generations are currently accommodated by existing facilities. In order to properly
12 plan for water supply, the LADWP determines water demands using factors such as
13 demographics, weather, economy, and trends in development. The LADWP, in
14 Chapter 6 of the UWMP, which is hereby incorporated by reference, determined an
15 existing water demand of 680,000 acre-feet per year within the DWP service area
16 that can be accommodated by the planned water supply of the same amount
17 (LADWP, 2005). The LADWP Urban Water Management Plan (UWMP) projects
18 overall water supply reliability within the DWP service area through 2030;
19 LADWP's forecast specifically includes anticipated demand from projects which are
20 included in the Port's Community Plan or the PMP, including all past, present and
21 reasonably foreseeable future Port projects (LADWP 2005). LADWP, in Exhibit C
22 (Service Reliability Assessment of Average Year) in Chapter 6 of the UWMP,
23 expects it will be able meet the demand through 2030 with a combination of existing
24 supplies, planned supplies and MWD purchases (existing and planned). The
25 California Urban Water Management Planning Act requires water suppliers to
26 develop water management plans every 5 years. Because of this, the LADWP would
27 continue to project future water demands and supply through new UWMPs every 5
28 years. Although the planning horizon for the current UWMP includes 2030, future
29 UWMPs will cover the 2045 horizon, which will include water supply planning for
30 the City in 2045 and beyond. Because of the LADWP will continue to the plan and
31 provide water supply for its customers, the past, present, and reasonably foreseeable
32 future projects would not result in a significant cumulative impacts on the provision
33 of water.

34 The TITP wastewater treatment plant is currently operating at 54 percent of its daily
35 capacity of 30 million gallons per day, resulting in an available capacity of 13.8
36 million gallons of additional wastewater flow per day (personal communication, D.
37 Gumaer, 2007). The City projects that by 2020, wastewater flows in the TITP
38 service area will grow to 19.9 mgd (City of Los Angeles, 2006); therefore,
39 approximately 10 mgd in daily capacity at TITP would remain unused and available
40 for future years (beyond 2020). Wastewater from the related projects would not
41 significantly affect existing or future capacity at TITP due to the substantial
42 remaining capacity at TITP beyond 2020, which, based on the wastewater flow
43 growth rate projected between 2006 and 2020, is estimated to adequately handle 2045
44 wastewater flow demands. Consequently, the past, present, and reasonably

1 foreseeable future projects would not result in a significant cumulative impacts to
2 wastewater treatment capacity.

3 The three landfills that serve the City, including the Port area, are the Chiquita
4 Canyon Landfill, the Sunshine Canyon Landfill, and the El Sobrante Landfill. As
5 described in Section 3.13.2.2.4, the Chiquita Canyon Landfill is has an allotted daily
6 throughput capacity of 5,000 tons and is expected to operate until 2025. The
7 Sunshine Canyon Landfill has a daily throughput capacity of 5,500 tons allotted for
8 City use and is expected to accommodate demands until 2029 (Sanitation District of
9 Los Angeles County, 2007). The El Sobrante Landfill has a maximum daily
10 permitted capacity of 10,000 tons per day, and its projected closure date is 2030
11 (Sanitation Districts of Los Angeles County, 2007). Approximately 4,000 tons per
12 day of capacity is reserved for refuse generated in Riverside County (City of Lake
13 Elsinore, 2006). Solid waste generated from related projects after closure of the
14 Chiquita Canyon Landfill, the Sunshine Canyon Landfill, and the El Sobrante
15 Landfill (2030 and after) would represent a significant cumulative impact to landfill
16 capacity if no additional adequate landfill capacity is permitted and made available, if
17 more distant landfill capacity is not utilized for solid waste generated in the City,
18 and/or if the achievement of Zero-Waste solutions as defined in the City's SWIRP do
19 not occur over an extended time period.

20 Many of the projects identified in Table 4-1 are Port redevelopment projects within the
21 proposed Project vicinity, and generally do not require any expansion of facilities.
22 Therefore, it is expected that water consumption, and wastewater and solid waste
23 generations would remain similar to current levels. However, several of the projects
24 involve new or expanded land uses or throughput operations that may result in
25 additional utility demands and generations. These projects include the Pier 400
26 Container Terminal and Transportation Corridor Project (#1), Evergreen Improvements
27 Project (#7), Berths 121-131 Yang Ming Container Terminal (#29), Middle Harbor
28 Terminal Redevelopment (Port of Long Beach) (#69), Berths 97-109 China Shipping
29 Terminal Development Project (#15), Berths 171-181 Pasha Marine Terminal
30 Improvements (#16), Berths 302-305 APL Container Terminal Expansion (#23), Ponte
31 Vista (#66), and Dana Strand (#60). The number of related projects would increase the
32 demands for water as well as generation of wastewater and solid waste. Based on the
33 above, the past, present, and reasonably foreseeable future projects would not result
34 in a significant cumulative impacts on the provision of water, would not result in a
35 significant cumulative impact on wastewater treatment capacity, but would result in a
36 significant cumulative impact to solid waste capacity after the closure dates of the
37 Chiquita Canyon Landfill, the Sunshine Canyon Landfill, and the El Sobrante
38 Landfill, if no additional adequate landfill capacity is permitted and made available,
39 if more distant landfill capacity is not utilized for solid waste generated in the City,
40 and/or if the achievement of Zero-Waste solutions as defined in the City's SWIRP do
41 not occur over an extended time period.

42 **Contribution of the Proposed Project (Prior to Mitigation)**

43 The proposed Project would result in minimal increased water demands, and
44 wastewater and solid waste generations that would not exceed the capacity of
45 existing facilities. The proposed Project would operate at full capacity in 2025 and
46 would generate a maximum water demand of approximately 9.8 acre-feet per year,

1 which represents 0.0013 percent of the anticipated LADWP water demand
2 (755,000 acre feet). Because the proposed Project's water demand is low, and
3 because ongoing water supply planning would continue to occur via new or updated
4 UWMPs in the future, the proposed Project would not result in significant impacts,
5 nor would the cumulative impact be significant. Thus, the project would not result in
6 a cumulatively considerable contribution to a significant cumulative impact.

7 Wastewater generation would be 0.006 million gallons per day, contributing 0.02
8 percent to the TITP daily capacity. Because the TITP currently operates at
9 54 percent capacity, these increases would be considered negligible. The amount of
10 wastewater generated by the Project would not significantly affect existing or future
11 capacity at TITP due to the limited operational Project flows and the adequate
12 remaining capacity at TITP beyond 2020 (to 2045), as described above. Therefore,
13 impacts associated with exceeding the capacity of the existing water supply and the
14 TITP wastewater treatment facility would be less than significant. Since the
15 cumulative impact is less than significant, the project would not result in a
16 cumulatively considerable contribution to a significant cumulative impact.

17 The proposed Project would generate 17.9 tons of solid waste per year, which would
18 represent 0.000010 percent of the Chiquita Canyon Landfill permitted daily capacity,
19 0.000009 percent of the Sunshine County Landfill permitted daily capacity, and
20 0.000008 percent of the available permitted El Sobrante Landfill daily capacity.
21 Solid waste generated from Project operations after the closure dates for the Chiquita
22 Canyon Landfill, the Sunshine Canyon Landfill, and the El Sobrante Landfill (2030
23 and after) would represent a significant impact to landfill capacity, and therefore a
24 cumulatively considerable contribution to a significant cumulative solid waste impact
25 under CEQA and NEPA. However, if additional adequate landfill capacity is
26 permitted and made available, if more distant land fill capacity is utilized for solid
27 waste generated in the City, and/or if the achievement of Zero-Waste solutions in the
28 City occurs as defined in the City's SWIRP occur over an extended time period, then
29 the solid waste generated by the Project likely would not represent a significant
30 impact to landfill capacity. Since the cumulative impact is less than significant, the
31 solid waste generated by the Project beyond 2030 would not result in a cumulatively
32 considerable contribution to a significant cumulative impact.

33 In addition, construction of the proposed Project would generate approximately 5,524
34 tons of solid waste, which would be a substantial one-time contribution to the solid
35 waste stream. Because construction and demolition debris is one of the greatest
36 individual contributors to reductions in solid waste capacity, impacts associated with
37 Project construction would be significant under CEQA and NEPA, and would
38 therefore represent a cumulatively considerable contribution to a significant
39 cumulative solid waste impact.

40 **Mitigation Measures and Residual Cumulative Impacts**

41 **MMs PS-1** through **PS-3**, as described in Section 3.13.4.3.1, provide that: 1)
42 demolition and/or excess construction materials shall be separated on-site for
43 reuse/recycling or proper disposal and separate bins for recycling of construction
44 materials shall be provided on-site, 2) materials with recycled content shall be used in
45 project construction and chippers on site shall be used to further reduce excess wood

1 for landscaping cover, and 3) the proposed Project complies with policies and
2 standards set forth in the City's Solid Waste Integrated Resources Plan (SWIRP)
3 following 2025, which has the goal of Zero waste. After implementation of MMs
4 PS-1 through PS-3, the impact of the project would not make a cumulatively
5 considerable contribution to the significant cumulative impact.

6 **4.2.13.6 Cumulative Impact PS-5: Cumulative Impacts on Energy** 7 **Demands, Supply Facilities, and Distribution** 8 **Infrastructure – Less than Cumulatively Considerable**

9 **Cumulative Impact PS-5** represents the potential of the proposed Project along with
10 other cumulative projects to generate increases in energy demands such that the
11 construction of new energy supply facilities and distribution infrastructure would be
12 required.

13 **Impacts of Past, Present, and Reasonably Foreseeable Future** 14 **Projects**

15 Construction and operation of past and present projects has resulted in existing
16 demands for water and generations of wastewater and solid waste. These demands
17 and generations are currently accommodated by existing facilities as provided by the
18 LADWP and SCG. Many of the projects identified in Table 4-1 involve relocation of
19 existing facilities within the Port and vicinity, and generally do not require any
20 expansion of facilities. Therefore, it is expected that electricity and natural gas
21 consumption would remain similar to current levels. However, several of the
22 projects involve new or expanded land uses or throughput operations that may result
23 in additional demand on electricity and natural gas. These projects include the Pier
24 400 Container Terminal and Transportation Corridor Project (#1), Evergreen
25 Improvements Project (#7), Berths 121-131 Yang Ming Container Terminal (#29),
26 Middle Harbor Terminal Redevelopment (Port of Long Beach) (#69), Berths 97-109
27 China Shipping Terminal Development Project (#15), Berths 171-181 Pasha Marine
28 Terminal Improvements (16), and Berths 302-305 APL Container Terminal
29 Expansion (#23). These related projects would place an additional demand on
30 electricity and natural gas.

31 Under the Los Angeles City Charter (Sections 220 and 673), LADWP has the power
32 and duty to construct, operate, maintain, extend, manage, and control water and
33 electric works and property for the benefit of the City and its habitats. As a
34 consequence, LADWP is charged with maintaining sufficient capability to provide its
35 customers with a reliable supply of power. The LADWP prepared an Integrated
36 Resources Plan (IRP) in 2000 and 2006 to provide a framework to assure that future
37 energy needs of LADWP customers are reliably met at the least cost and are
38 consistent with the City commitment to environmental excellence (City of Los
39 Angeles, 2006). In 2002, SB 1078 implemented a Renewable Portfolio Standard,
40 which established a goal that 20 percent of the energy sold to customers be generated
41 by renewable resources by 2017. The IRP provides objectives and recommendations
42 to reliably supply LADWP customers with power and to meet the 20 percent
43 renewable energy goal by 2010.

1 As of the 2006 IRP, LADWP prepared a Load Forecast that predicts that LADWP
2 customers electricity consumption will increase at an average rate of 1.1 percent per
3 year, and that peak demand will increase an average of 70 megawatts per year for the
4 foreseeable future. For 2025, LADWP predicts that peak demand will reach
5 7,370 megawatts and that total resources will amount to 8,516 megawatts (including
6 a reserve margin).

7 Based on the LADWP IRP, electricity resources and reserves at LADWP will
8 adequately provide electricity for the Port, including past, present, and reasonably
9 foreseeable future projects. The IRP does not provide load demand forecasts or
10 supply resources beyond 2025 because its planning horizon extends only to 2025.
11 However, because LADWP is required by the Charter to provide a reliable supply of
12 electricity for its customers and because LADWP is moving toward increasing
13 renewable energy supplies in its resource portfolio, the electricity demand of the past,
14 present, and reasonably foreseeable future projects would not result in the need to
15 construct a new unplanned offsite power station or facility. As a result, past, present,
16 and reasonably foreseeable future projects would not result in a significant
17 cumulative impact related to the provision of energy under CEQA and NEPA.

18 **Contribution of the Proposed Project (Prior to Mitigation)**

19 The proposed Project would result in minimal increased demands for electricity and
20 natural gas. Project operations would generate demands for electricity associated with
21 vessel-unloading operations, transfer of crude oil, AMP system usage (if AMP is
22 used as a mitigation measure), site and security lighting, and general site
23 maintenance. However, the increase in electricity demands associated with proposed
24 Project operations would not exceed existing supplies or result in the need for major new
25 facilities. The proposed Project would provide new energy distribution infrastructure
26 required to support proposed Project operations. The proposed Project would incorporate
27 energy conservation measures in compliance with California's Building Code CCR Title
28 24 that requires building energy efficient standards for new construction (including
29 requirements for new buildings, additions, alterations, and, in non-residential buildings,
30 repairs). The proposed Marine Terminal buildings, including the Terminal Control
31 Building, Administration Building, and Security Building, would be designed to and built
32 under the LEED Green Building Rating System, thereby minimizing electricity demands.
33 Additionally, the proposed Project would generate minimal demands for natural gas
34 associated with space and water heating. As administrative offices represent a minor
35 component of container terminal operations, the increased demand for natural gas would
36 be accommodated by SCG. Therefore, the proposed Project would not result in a
37 significant increase in demands on electricity and natural gas. Since the cumulative
38 impact is less than significant, the increased demands for electricity and natural gas by
39 the Project beyond 2030 would not result in a cumulatively considerable contribution
40 to a significant cumulative impact.

41 **Mitigation Measures and Residual Cumulative Impacts**

42 As the proposed Project would have less than cumulatively considerable impacts on
43 energy demands, supply facilities, and distribution infrastructure, no mitigation

measures would be required. Impacts would remain less than cumulatively considerable under CEQA and NEPA.

4.2.14 Water Quality, Sediments, and Oceanography

4.2.14.1 Scope of Analysis

The geographic scope for cumulative impacts on water quality, sediments, and oceanography is the Los Angeles-Long Beach Harbor (inner and outer harbor areas) because this represents receiving waters for the cumulative projects. The geographic scope for surface water hydrology and flooding is the uplands portions of Pier 400 that include the areas of the Marine Terminal, tank farms, and connecting pipelines and adjacent lands on the Pier 400 Causeway and Pier 300 on Terminal Island that represent the drainage area that would be influenced by the proposed Project and other cumulative projects.

The significance criteria used for the cumulative analysis are the same as those used for the proposed Project in Section 3.14.4.2. These criteria are the same for both CEQA and NEPA impact analyses.

4.2.14.2 Cumulative Impact WQ-1: Cumulative Discharge Effects to Water and Sediment Quality – Cumulatively Considerable and Unavoidable

Cumulative Impact WQ-1 represents the potential of the proposed Project, along with other cumulative projects, to create pollution, cause nuisances, or violate applicable standards.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Water and sediment quality within the geographic scope are affected by present and past activities within the Harbor (e.g., shipping and wastewater discharges from the Terminal Island Treatment Plant [TITP]), inputs from the watershed including runoff and aerial deposition of particulate pollutants, and effects from historical (legacy) inputs. As discussed in Section 3.14, portions of the Los Angeles/Long Beach harbor complex are identified on the current Section 303(d) list as impaired for a variety of chemical and bacteriological stressors and effects to biological communities. For those stressors causing water quality impairments, TMDLs will be developed that will specify load allocations from the individual input sources, such that the cumulative loadings to the Harbor would be below levels expected to adversely affect water quality and beneficial uses of the water body. However, these TMDL studies are not planned until the year 2019 (see Section 3.14.2.1). Thus, in the absence of restricted load allocations and/or removal or remediation of contaminated sediments, the impairments would be expected to persist.

1 Present and reasonably foreseeable future projects with in-water construction
2 components, such as dredging and pier upgrades, would result in temporary and localized
3 effects to water quality that would be individually comparable to those associated with
4 the proposed Project. Changes to water quality associated with in-water construction for
5 the other cumulative projects would not persist for the same reasons discussed in Section
6 3.14. Therefore, cumulative impacts would occur only if the spatial influences of
7 concurrent projects overlapped. Of the cumulative projects listed in Table 4-1, only the
8 Channel Deepening Project (#4), China Shipping Terminal Development (#15) and
9 Berths 121-131 Development (#29) are located in the vicinity of the proposed Project and
10 involve in-water construction activities. Dredging for the Channel Deepening Project (#4)
11 and Phase I construction for the China Shipping Terminal Development (#15) has been
12 completed, whereas the Berths 121-131 Development (#29) is still in the planning phase.
13 The Consolidated Slip Sediment Restoration project, as well as a number of projects
14 within the Port of Long Beach, including the Middle Harbor Terminal Redevelopment
15 (#69), Piers G and J Redevelopment (#70), Pier T Marine Terminal (#73), and Pier S
16 Marine Terminal (#74), would involve dredging and/or in-water construction. However,
17 water quality effects from in-water construction activities associated with these
18 cumulative projects would be limited to the immediate dredging or construction area and
19 would not overlap with those associated with construction of the proposed Project. The
20 Artificial Reef (#6) and Inner Cabrillo Beach Water Quality Improvement (#32) projects
21 would also involve minor in-water construction, but effects from these projects would not
22 overlap with those of the proposed Project.

23 Wastewater discharges associated with project operations and runoff from project
24 sites would be regulated by stormwater permits. The permits would specify
25 constituent limits and/or mass emission rates that are intended to protect water
26 quality and beneficial uses of receiving waters from cumulative effects associated
27 with multiple, concurrent stormwater discharges. In addition, related projects in the
28 Ports of Los Angeles and Long Beach would be operated in accordance with
29 industrial SWPPPs that require monitoring and compliance with permit conditions.
30 SUSMP requirements would also be implemented via the planning, design, and
31 building permit processes. Although standard regulatory compliance measures would
32 apply to the related projects, which would minimize their pollutant contributions to
33 the Harbor, the Harbor is still listed on the Section 303(d) list as being impaired, and
34 would likely remain so until TMDLs can be fully implemented throughout the entire
35 watershed. Consequently, a significant cumulative impact to water quality related to
36 its Section 303(d) listing would remain.

37 Development of port facilities associated with the cumulative projects, including Pier
38 400 Container Terminal (#1), Evergreen Container Terminal Improvements (#7),
39 Berths 97-109 Development (#15), Berths 302-305 APL Container Terminal
40 Improvements (#23), Berths 212-224 Container Terminal Improvements (#28),
41 Berths 121-131 Container Terminal Improvements (#29), Middle Harbor Terminal
42 Redevelopment (#69), Piers G & J Terminal Redevelopment (#70), Pier T Terminal
43 (#73), and Pier S Marine Terminal (#74), is expected to contribute to a greater
44 number of ship visits to the Ports of Los Angeles and Long Beach. Assuming that
45 the potential for accidental spills, illegal vessel discharges, and chemical releases
46 from vessel hull anti-fouling paints would increase in proportion to the increased
47 vessel traffic, contaminant loadings to the Harbor also would be expected to increase.
48 The significance of this increased loading would depend in part on the volumes and
49 composition of the releases, as well as the timing and effectiveness of spill response

1 actions. As noted for the proposed Project (Section 3.14.4.3.1), there is no evidence
2 that illegal discharges for ships are causing widespread impacts to water quality in
3 the Harbor. However, as Harbor waters are considered impaired and because these
4 related projects would contribute to pollutant loadings through spills and illegal
5 discharges, or pollutant leaching from vessel hull coatings, these related projects
6 would result in significant cumulative water quality impacts.

7 A long-term increase in the transport of crude oil and petroleum products through the
8 Ports would result from the Ultramar Lease Renewal Project (#12) and Chemoil
9 Marine Terminal (#79). These projects have the potential for accidental spills of oil
10 or products into Harbor waters in proportion to the number of vessels and transfers.
11 Small spills of less than 10 bbl are expected to have limited effects on marine water
12 quality because the area affected would be localized, and containment and cleanup
13 procedures would reduce the potential for spreading. Larger spills (10 to 238 bbl) are
14 considered rare (see Chapter 3.12) and unlikely to occur at any of the proposed
15 facilities. However, if a large spill did occur, the magnitude and extent of impacts
16 would depend on the amount of water affected. In either case, the presence of any
17 amount of spilled oil would exceed the threshold for oil and grease as defined in the
18 Basin Plan. Therefore, cumulative impacts to water quality would be significant.

19 **Contribution of the Proposed Project (Prior to Mitigation)**

20 The proposed Project would not result in any direct discharges of wastes or wastewaters
21 to the Harbor. However, stormwater runoff from the onshore portions of the proposed
22 Project area would flow into the Harbor, along with runoff from adjacent areas of the
23 primarily industrialized watershed. Stormwater runoff from the proposed Project site
24 would be governed by a permit, similar to those required for the other cumulative
25 projects, that specifies constituent limits and/or mass emission rates that are intended to
26 protect water quality and beneficial uses of receiving waters. Relative to both CEQA and
27 NEPA baseline conditions, the proposed Project operations would contribute only
28 slightly higher volumes of runoff (due to the increased surface area associated with the
29 impervious ground cover) and no substantial differences in the chemical composition
30 because the land uses would be essentially the same. While the inputs from the proposed
31 Project would be negligible compared with those from the entire watershed, the runoff
32 could contain contaminants (e.g., metals) that have been identified as stressors for
33 portions of the Los Angeles/Long Beach Harbor complex. Thus, the proposed Project
34 without mitigation would contribute to a cumulatively considerable impact relative to
35 both the CEQA and NEPA Baselines.

36 In-water construction activities, such as piling and rock installation associated with
37 the berth construction, would suspend bottom sediments. While this would not
38 constitute a discharge, disturbances of bottom sediments would alter some water
39 quality parameters such as dissolved oxygen (DO), nutrients, and turbidity. These
40 changes are generally of short duration and localized to the mixing zone associated
41 with the construction activity. As discussed in Section 3.14, changes to water quality
42 associated from in-water construction are not expected to exceed applicable
43 standards. Because the effects are not expected to overlap in time and space with
44 those from other projects, the impacts of such disturbances would not be
45 cumulatively considerable relative to both the CEQA and NEPA Baselines. Once the
46 construction phase of the proposed Project is completed, operations would not be

1 expected to cause further disturbances to bottom sediments or contribute to
2 cumulative impacts.

3 The proposed Project would result in an increased number of tanker vessel visits to
4 the Ports of Los Angeles and Long Beach, which could contribute to contaminant
5 (e.g., copper) leaching from vessel hull paints as well as a proportionally higher
6 potential for accidental spills, and illegal vessel discharges, within the Harbor. In
7 addition, the proposed Project would exacerbate a potential, cumulatively significant
8 impact related to oil spill risk due to the increased use of existing pipelines, although
9 those pipelines are currently used for petroleum products (Section 4.2.12.3). While
10 contaminant leaching from hull paints would not cause water quality standards to be
11 exceeded at Berth 408, dispersion by currents of contaminants from Berth 408 could
12 exacerbate water quality conditions in other portions of the Harbor. The terminal
13 operator will be required to implement SPCC and OSCP Plans that ensure that
14 facilities include containment and other countermeasures that would reduce but not
15 eliminate the potential for oil spills to reach Harbor waters. Spills or waste
16 discharges directly to the Harbor would result in significant impacts to water quality.
17 Because the proposed Project would result in an increased number of ship visits, the
18 proposed Project would contribute to cumulative impacts to water quality. Therefore,
19 the proposed Project would make a cumulatively considerable contribution to a
20 significant cumulative impact, related to contaminant leaching from hull paints and
21 water quality impacts from potential oil spills, under CEQA and NEPA.

22 **Mitigation Measures and Residual Cumulative Impacts**

23 Best management practices to prevent or minimize contaminant loadings to the
24 Harbor via stormwater runoff from past, present, and future projects, including the
25 proposed Project, are required by the Standard Urban Stormwater Mitigation Plan
26 (SUSMP), which is incorporated into the Los Angeles County Urban Runoff and
27 Stormwater NPDES Permit issued by the LARWQCB. SUSMP requirements must
28 be incorporated into the project plan and approved prior to issuance of building and
29 grading permits. Specifically, the SUSMP requires that each project incorporate
30 BMPs designed to minimize stormwater pollutant discharges. While adopted BMPs
31 vary by project, all BMPs must meet specific design standards to mitigate stormwater
32 runoff and control peak flow discharges. The SUSMP also requires implementation
33 of a monitoring and reporting program to ensure compliance with the constituent
34 limitations in the permit. These BMPs and compliance monitoring would reduce the
35 proposed Project's contribution to cumulative impacts from runoff to less than
36 cumulatively considerable relative to both the CEQA Baseline and the NEPA
37 Baseline.

38 As discussed in Section 3.12, safety measures specified in the LAHD Risk
39 Management Plan and in project-specific SPCC plans minimize the risks of a large,
40 accidental spill from impacting the harbor. However, these plans cannot completely
41 eliminate the risk of a spill. Similarly, there are no feasible mitigation measures that
42 would completely eliminate the potential for illegal discharges or oil spills from
43 vessels to violate applicable water quality standards. Consequently, significant
44 impacts would remain, and the proposed Project would make a cumulatively
45 considerable contribution to cumulatively significant impacts relative to the potential

1 for illegal discharges, oil spills, and contaminant leaching from hull paints, under
2 CEQA and NEPA.

3 **4.2.14.3 Cumulative Impact WQ-2: Cumulative Flooding Impacts** 4 **– Less Than Cumulatively Considerable**

5 **Cumulative Impact WQ-2** addresses the potential of the proposed Project along
6 with other cumulative projects to cause flooding sufficient to harm people or damage
7 property or sensitive biological resources.

8 **Impacts of Past, Present, and Reasonably Foreseeable Future** 9 **Projects**

10 As discussed in Section 3.14, the proposed Project and adjacent areas of the Port are
11 within the 100-year flood zone. Past development has increased the amount of
12 impervious surface area within the watershed. Past development has also installed a
13 storm drain system to collect and convey storm runoff. Cumulative projects would
14 increase the flooding potential (relative to both the CEQA and NEPA Baselines) only
15 if the higher runoff volumes or altered drainage patterns exceeded the capacity of the
16 drainage system to convey stormwater offsite. Cumulative projects in the vicinity of
17 the proposed Project with the potential to affect drainage patterns and runoff volumes
18 are projects Pier 400 Container Terminal (#1), Ultramar Lease Renewal (#12), LAXT
19 Dome and Site Demolition (#18), Joint Container Inspection Facility (#22), South
20 Wilmington Grade Separation (#24), and Avalon Boulevard Corridor Development
21 (#25) (Table 4-1). Similar to the proposed Project, these cumulative projects are
22 located on flat terrain, such that minor grading and paving associated with project
23 construction would not alter runoff patterns, velocities, or volumes sufficiently to
24 increase risks of local flooding or harm to people, property, or biological resources.
25 Therefore, the impacts of related projects are not cumulatively significant.

26 **Contribution of the Proposed Project (Prior to Mitigation)**

27 As discussed in Section 3.14, new on-site storm drains installed for the proposed
28 Project would be designed for a 50-year storm event, which is consistent with the
29 capacity of the existing facilities. The proposed Project would increase impervious
30 surface area incrementally, thereby increasing the runoff volumes slightly compared
31 to existing conditions. Site grading and the storm drain system would be adequate to
32 convey runoff to the Harbor, without the risk of flooding, under most conditions.
33 Runoff associated with a 100-year storm event would exceed the design capacity of
34 the storm drain system, resulting in temporary ponding of water on-site. However,
35 because the terrain of the proposed Project site and adjacent properties is flat and
36 runoff velocity would not be increased, the proposed Project without mitigation
37 would not substantially increase the risk of flooding that could harm people or
38 biological resources or damage property. Impacts would not be cumulatively
39 considerable relative to both the CEQA and NEPA Baselines. Because the
40 cumulative impacts would be less than significant, the proposed Project would not
41 result in a cumulatively considerable contribution to a significant cumulative impact.

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Mitigation Measures and Residual Cumulative Impacts

None are required, as the contribution of the proposed Project to cumulative impacts would be less than considerable under CEQA and NEPA.

4.2.14.4 Cumulative Impact WQ-3: Cumulative Loss of Surface Water or Adverse Changes in Surface Water Movement – Less Than Cumulatively Considerable

Cumulative Impact WQ-3 addresses the potential of the proposed Project along with other projects to cause a permanent loss of surface water or alter surface water movements and cause adverse changes in water or sediment quality.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

The proposed Project site is within a commercial harbor environment that has been highly modified by past dredging, filling, and shoreline development in support of the maritime operations. Past, present, and reasonably foreseeable future projects such as Pier 400 Container Terminal (#1), Berths 97-109 Development (#15), Berths 302-305 APL Container Terminal Improvements (#23), Middle Harbor Terminal Redevelopment (#69), Piers G & J Terminal Redevelopment (#70) (see Table 4-1 and Figure 4-1) would add fill totaling over 700 acres (283 ha), of which about 600 acres (243 ha) are completed or under construction. Construction of fill areas either has or will reduce the overall amount of surface water within the harbor.

Past dredging, filling, and shoreline development operations have altered surface water movement in the Harbor. For example, water circulation patterns have been altered by the past, present, and future cumulative projects that include dredging and/or placement of fill (e.g., Pier 400 Container Terminal [#1], Channel Deepening [#4], Artificial Reef [#6], Berths 97-109 Development [#15], Berths 302-305 APL Container Terminal Improvements [#23], Middle Harbor Terminal Redevelopment [#69], and Piers G & J Terminal Redevelopment [#70]). Changes to the hydro-morphology could affect water quality by inhibiting the exchange of waters between different portions of the Harbor which, in turn, could limit mixing and dilution of runoff. However, baseline studies and other routine monitoring efforts (e.g., MEC and Associates 2002), discussed in Section 3.14, have not reported hypoxic (low oxygen concentrations) conditions or other anomalous spatial patterns in water quality indicators that could reflect stagnation or limited water exchange between areas within the harbor complex. This is reasonable because the channels and waterways that are maintained for vessel navigation provide sufficient water exchanges between different areas of the Harbor complex to avoid stagnation.

In summary, the impacts of related projects are cumulatively significant with respect to loss of surface waters and surface water movement.

Contribution of the Proposed Project (Prior to Mitigation)

The proposed Project would not result in the loss of surface waters or add fill to the Harbor, other than the small number of pilings and rock that would be installed at Berth 408. The pier pilings would slow water movement along the wharf. Regardless, the pilings and rock would not impede or restrict water exchanges with adjacent portions of the Harbor. Because the proposed Project and the other cumulative projects would not interfere with vessel navigation, the cumulative fill would not restrict water movement within the Harbor. Thus, cumulative impacts from construction on loss of surface water and water movement would not be cumulatively significant. Because the cumulative impacts would be less than significant, the proposed Project would not have a cumulatively considerable contribution to a significant cumulative impact relative to both the CEQA and NEPA Baselines.

Mitigation Measures and Residual Cumulative Impacts

None are required, as the contribution of the proposed Project to cumulative impacts would be less than considerable under CEQA and NEPA.

4.2.14.5 Cumulative Impact WQ-4: Cumulative Acceleration of Rates of Erosion and Sedimentation – Less Than Cumulatively Considerable

Cumulative Impact WQ-4 represents the potential for the proposed Project along with other cumulative projects to increase the rates of soil erosion within onshore portions of the project site and sedimentation within the site or in adjacent properties and receiving waters.

Impacts of Past, Present, and Reasonably Foreseeable Future Projects

Cumulative past, present, and future projects with construction operations similar to those of the proposed Project will disturb soils within upland areas of the watershed that drain to the harbor. Cumulative projects such as Pier 400 Container Terminal (#1), San Pedro Waterfront (#3), Cabrillo Way Marina (#5), China Shipping Terminal Development (#15), San Pedro Waterfront Enhancements (#21) and Berths 121-131 Container Terminal Improvements (#29) (see Table 4-1), have or are expected to disturb soils and make them subject to erosion by wind or runoff, with potential for subsequent transport into and accumulation in the Harbor. Other cumulative projects with a dredging component, such as Channel Deepening (#4) and Consolidated Slip Restoration (#14), have removed or will remove watershed-derived sediments that accumulated with navigational channels and new project areas. Soils exposed by construction activities would be subject to erosion, transport offsite, and deposition in the Harbor. However, construction SWPPPs incorporate BMPs for minimizing erosion and offsite transport of soils from construction sites. Information to quantitatively evaluate the contribution of cumulative projects to soil inputs and sedimentation in the Harbor compared with those associated with other watershed

1 sources is unavailable. Regardless, the watershed is characterized primarily by
2 industrial land uses with a high proportion of paved surface. Therefore, soil loadings
3 to the Harbor from cumulative projects are expected to be comparatively small and
4 have minimal impacts on sedimentation. In addition, the related projects would
5 result in additional impervious coverings over much of their respective sites, which
6 would limit site erosion and sedimentation. Because of this, the related projects
7 would not result in significant cumulative impacts related to erosion or
8 sedimentation.

9 **Contribution of the Proposed Project (Prior to Mitigation)**

10 Construction activities associated with the proposed Project would have minimal
11 potential for accelerating erosion of soils and offsite sedimentation impacts in the
12 Harbor due to the small spatial extent of soil disturbances and the effectiveness of
13 BMPs in minimizing erosion and offsite transport. Operations associated with the
14 proposed Project would not affect soil erosion or sedimentation in the Harbor or the
15 watershed. The cumulative impacts on rates of erosion and sedimentation would not
16 be cumulatively considerable. Because the cumulative impacts would be less than
17 significant, the proposed Project would not have a cumulatively considerable
18 contribution to a significant cumulative impact relative to both the CEQA and NEPA
19 Baselines.

20 **Mitigation Measures and Residual Cumulative Impacts**

21 None are required, as the contribution of the proposed Project to cumulative impacts
22 would be less than cumulatively considerable under CEQA and NEPA.

23 **4.2.15 Population and Housing**

24 **4.2.15.1 Scope of Analysis**

25 The Initial Study (Appendix A) found that there would be no impacts for the
26 proposed Project on population and housing *displacement* and therefore, that impact
27 criterion is not addressed in Section 3.15 or in this section. This scope of the analysis
28 in Section 3.15 and the associated cumulative analysis below is therefore limited to
29 topics related to population and housing *growth*. The geographic scope of the
30 analysis includes the five-county southern California region (Los Angeles, Orange,
31 Riverside, San Bernardino, and Ventura) and communities in the vicinity of the San
32 Pedro Bay Ports, where the vast majority of employment and economic effects from
33 the proposed Project are anticipated to occur. The primary types of actions that could
34 have impacts on this resource are projects or plans approved by LAHD and the Port of
35 Long Beach that generate employment, income or development of facilities and
36 infrastructure within or in the vicinity of the ports, and in addition, other growth and
37 development in communities with proximity to the proposed Project, that are
38 controlled or implemented by other entities, that would occur regardless of
39 implementation of the proposed Project and could affect the physical environment.

1 **4.2.15.2 Cumulative Impact POP-1: Causes growth or**
 2 **accelerates development in an undeveloped area that**
 3 **exceeds projected/planned levels and that would result**
 4 **in an adverse physical change to the environment –**
 5 **Less Than Cumulatively Considerable**

6 **Cumulative Impact POP-1** addresses the degree to which the proposed Project and
 7 past, present, and reasonably foreseeable future projects would cause growth (i.e.,
 8 new housing or employment generators) or accelerate development in an
 9 undeveloped area that exceeds projected/planned levels for the year of the proposed
 10 Project occupancy/buildout, and that would result in an adverse physical change in
 11 the environment (City of Los Angeles 2006). The threshold of significance for the
 12 impact is identical under CEQA and NEPA, and is described in Section 3.15.4.2. The
 13 geographic scope of analysis for this impact is as described above in Section 4.2.15.1.

14 **Effects of Past, Present, and Reasonably Foreseeable Future**
 15 **Projects**

16 As described in Section 3.15 and Chapter 7, population in the five-county region has
 17 grown since 1990, with the fastest rates of growth in Riverside and San Bernardino
 18 Counties. Most of the communities and the incorporated cities in the vicinity of the
 19 San Pedro Bay Ports have grown at slower rates than the region as a whole.
 20 Employment growth has undergone a similar magnitude of growth to population in
 21 the region, with the inland counties, however, undergoing growth at a much faster
 22 rate than the coastal counties, and, in addition, undergoing a higher rate of
 23 employment growth compared to their rates of population growth. The trend of
 24 faster rates of growth in employment in the inland counties is projected to continue in
 25 the future.

26 Cumulative projects with the greatest relevance to the analysis of cumulative
 27 population and housing impacts are Berth 226-236 (Evergreen) Container Terminal
 28 Improvements Project and Cannery Steam Demolition (#7), Ultramar Lease Renewal
 29 Project, Port of Los Angeles (#12), Berths 97-109 (China Shipping) Terminal
 30 Development Project (#15), Berth 302-305 (APL) Container Terminal Improvements
 31 Project (#23), Wilmington Waterfront Master Plan (Avalon Blvd. Corridor Project)
 32 (#25), Port Transportation Master Plan (#27), Berths 212-224 (YTI) Container
 33 Terminal Improvements Project (#28), and Berths 121-131 (Yang Ming) Container
 34 Terminal Improvements Project (#29). These projects implement port, transportation
 35 and community plans within developed areas to provide for additional port facilities
 36 and near-port transportation facilities to meet growth in various types of cargo and
 37 the related cargo transport, as well as promoting economic development in and
 38 around the San Pedro Bay Ports. They primarily include container terminal projects
 39 and a liquid bulk project that would, like the proposed Project, accommodate, in part,
 40 future demand for a variety of goods, and would result in growth in cargo throughput,
 41 employment, and economic activity within the San Pedro Bay Ports. The proposed
 42 Project, unlike the container terminal expansion projects, utilizes pipeline
 43 transportation as opposed to truck and rail transportation, when the cargo is unloaded
 44 at the berth. Other projects relate to transportation plans or improvements in the area.
 45 Of the LAHD and Port of Long Beach projects listed in Table 4-1, those that are

1 anticipated to generate the largest growth in employment and largest amount of
2 improvements and facilities are the container terminal expansion projects. Because of
3 the large size of the regional workforce in Southern California, and the dispersed
4 nature of secondary jobs beyond the immediate vicinity of the San Pedro Bay Ports, it
5 is expected that local workers will fill most of the construction and operations jobs
6 associated with these projects and would not require in-migration or relocation within
7 the region that would require new development of housing or unplanned
8 development.

9 The past, present, and reasonably foreseeable cumulative projects would not cause
10 growth (i.e., new housing or employment generators) or accelerate development in an
11 undeveloped area that exceeds projected/planned levels for the year of the proposed
12 Project occupancy/buildout, and that would result in an adverse physical change in
13 the environment. The cumulative impact resulting from the effects of past, present,
14 and reasonably foreseeable future projects is less than significant.

15 **Contribution of the Proposed Project (Prior to Mitigation)**

16 The proposed Project would not cause growth (i.e., new housing or employment
17 generators) or accelerate development in an undeveloped area that exceeds
18 projected/planned levels for the year of the proposed Project occupancy/buildout, and
19 that would result in an adverse physical change in the environment based on CEQA
20 and NEPA determinations (see Section 3.15.4.3.1). The proposed development would
21 occur in the City of Los Angeles and the vast majority of economic and employment
22 effects (direct and secondary) would occur within the five-county Southern
23 California region to accommodate, in part, the future demand for crude oil for refined
24 products. No mitigation measures were identified for the proposed Project because no
25 significant impacts were identified for **Impact POP-1**. The Proposed project and the
26 cumulative projects respond to increased demand for cargo transport, would draw
27 upon a large regional workforce, and would occur in developed areas consistent with
28 plans to improve transportation facilities and increase economic development in the
29 San Pedro Bay Ports and nearby areas. The cumulative impact is less than significant
30 and the proposed Project would not result in a cumulatively considerable contribution
31 to a significant cumulative impact.

32 **Mitigation Measures**

33 Because the cumulative impact is less than significant and the proposed Project
34 would not result in a cumulatively considerable contribution to a significant
35 cumulative impact for POP-1, no mitigation measures are required.

36 **4.2.15.3 Cumulative Impact POP-2: Introduces unplanned** 37 **infrastructure that was not previously evaluated in the** 38 **adopted plans – Less Than Cumulatively Considerable**

39 **Cumulative Impact POP-2** addresses the degree to which the proposed Project
40 could make a cumulatively considerable contribution to introducing unplanned
41 infrastructure that was not previously evaluated in the adopted Community Plan or

1 General Plan (City of Los Angeles 2006). The threshold of significance for the
2 impact is identical under CEQA and NEPA, and is described in Section 3.15.4.2. The
3 geographic scope of analysis for this impact is as described above in Section 4.2.15.1.

4 **Effects of Past, Present, and Reasonably Foreseeable Future** 5 **Projects**

6 The most important related projects are identical to those listed in Section 4.2.15.2.
7 Infrastructure associated with these projects would primarily include pipelines, roads
8 or rail facilities, and utilities required to support cargo terminal operations and
9 operations of other tenants at the San Pedro Bay Ports, as well as economic
10 development projects to increase commercial, recreational, retail, and business uses
11 within the ports and nearby communities. These uses are generally consistent with
12 port, city, and related transportation plans and are or would primarily be located in
13 industrial and developed areas within or near the ports, within utility right-of way
14 land uses, or within portions of the San Pedro Bay Ports where new development is
15 planned and designated to meet increased demands for shipping. The past, present,
16 and reasonably foreseeable cumulative projects would not introduce unplanned
17 infrastructure that was not previously evaluated in the adopted Community Plan or
18 General Plan. Therefore, the cumulative impact resulting from the effects of past,
19 present, and reasonably foreseeable future projects is less than significant.

20 **Contribution of the Proposed Project (Prior to Mitigation)**

21 Infrastructure that would be constructed for the proposed Project primarily includes
22 pipelines to transport crude oil from the terminal to the tank farms and then to the
23 Ultramar/Valero Refinery and other Plains pipeline systems nearby. The City of Los
24 Angeles General Plan, which includes the Port Plan, as well as the San Pedro and
25 Wilmington-Harbor City Community Plans, contain goals and policies applicable to
26 the proposed Project area. As described in Section 3.8, Land Use, pipeline
27 construction would be consistent with the goals and policies contained in applicable
28 plans, because they would be located primarily in industrial areas or within right-of-
29 way land uses. Therefore, proposed Project construction would not introduce any
30 infrastructure that is inconsistent with these plans. Likewise, proposed Project
31 operations would not introduce any unplanned infrastructure.

32 Because the cumulative impact is less than significant, the proposed Project would
33 not result in a cumulatively considerable contribution to a significant cumulative
34 impact for POP-2.

35 **Mitigation Measures**

36 Because the cumulative impact is less than significant and the proposed Project
37 would not result in a cumulatively considerable contribution to a significant
38 cumulative impact for POP-2, no mitigation measures are required.

4.3 Cumulative Impact Analysis for Alternatives

The cumulative effects of the Reduced Project Alternative are similar to those of the proposed Project because all construction elements of the Reduced Project Alternative are identical to the proposed Project, and operationally they are also similar. The cumulative effects of the No Federal Action/No Project Alternative are less than those for the proposed Project in terms of construction impacts, but similar to those for the proposed Project in terms of operation impacts because the No Federal Action/No Project Alternative also entails increased vessel calls for the marine delivery of crude oil. The following sections describe cumulative impacts of the alternatives in more detail.

4.3.1 No Federal Action/No Project Alternative

Under CEQA, the No Federal Action/No Project Alternative would make a cumulatively considerable contribution to a cumulatively significant impact in the following resource areas:

- Air Quality (cumulatively considerable and unavoidable)
- Biological Resources (cumulatively considerable and unavoidable)
- Geology (cumulatively considerable and unavoidable)
- Recreation (cumulatively considerable and unavoidable)
- Risk of Upset / Hazardous Materials (cumulatively considerable and unavoidable)
- Water Quality, Sediments, and Oceanography (cumulatively considerable and unavoidable).

The No Federal Action/No Project Alternative would contribute to fewer cumulative impacts under CEQA than the proposed Project. However, for some impacts (e.g., cancer and non-cancer health risks from TACs that are described in **Cumulative Impact AQ-6**), the contribution would be greater in magnitude for the No Federal Action/No Project Alternative than for the proposed Project. Because the No Federal Action/No Project Alternative is identical to the NEPA Baseline, it would have no cumulatively considerable contribution to any cumulative impact under NEPA.

4.3.2 Reduced Project Alternative

All of the Reduced Project Alternative construction elements and impacts are identical to those of the proposed Project, and operation impacts are generally similar. Under CEQA and NEPA, the Reduced Project Alternative would make a cumulatively considerable contribution to a cumulatively significant impact in the following resource areas:

- 1 • Air Quality (cumulatively considerable and unavoidable)
- 2 • Biological Resources (cumulatively considerable and unavoidable)
- 3 • Cultural Resources (cumulatively considerable prior to mitigation, but less
- 4 than cumulatively considerable with mitigation)
- 5 • Geology (cumulatively considerable and unavoidable)
- 6 • Ground Transportation (cumulatively considerable prior to mitigation, but
- 7 less than cumulatively considerable with mitigation)
- 8 • Groundwater (cumulatively considerable and unavoidable)
- 9 • Noise (cumulatively considerable and unavoidable)
- 10 • Recreation (cumulatively considerable and unavoidable)
- 11 • Risk of Upset / Hazardous Materials (cumulatively considerable and
- 12 unavoidable)
- 13 • Utilities and Public Services (cumulatively considerable prior to mitigation,
- 14 but less than cumulatively considerable with mitigation)
- 15 • Water Quality, Sediments, and Oceanography (cumulatively considerable
- 16 and unavoidable).

17 With respect to cumulative impacts, for construction impacts, the Reduced Project
18 Alternative would have the same contribution to cumulative impacts under CEQA
19 and NEPA as the proposed Project. For operation impacts, the Reduced Project
20 Alternative would have a contribution to cumulative impacts under CEQA and NEPA
21 that is similar to the proposed Project. However, for some impacts (e.g., cancer and
22 non-cancer health risks from TACs that are described in **Cumulative Impact AQ-6**),
23 the contribution would be greater in magnitude for the Reduced Project Alternative
24 than for the proposed Project.

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